

Read the Convention Reports in This Issue

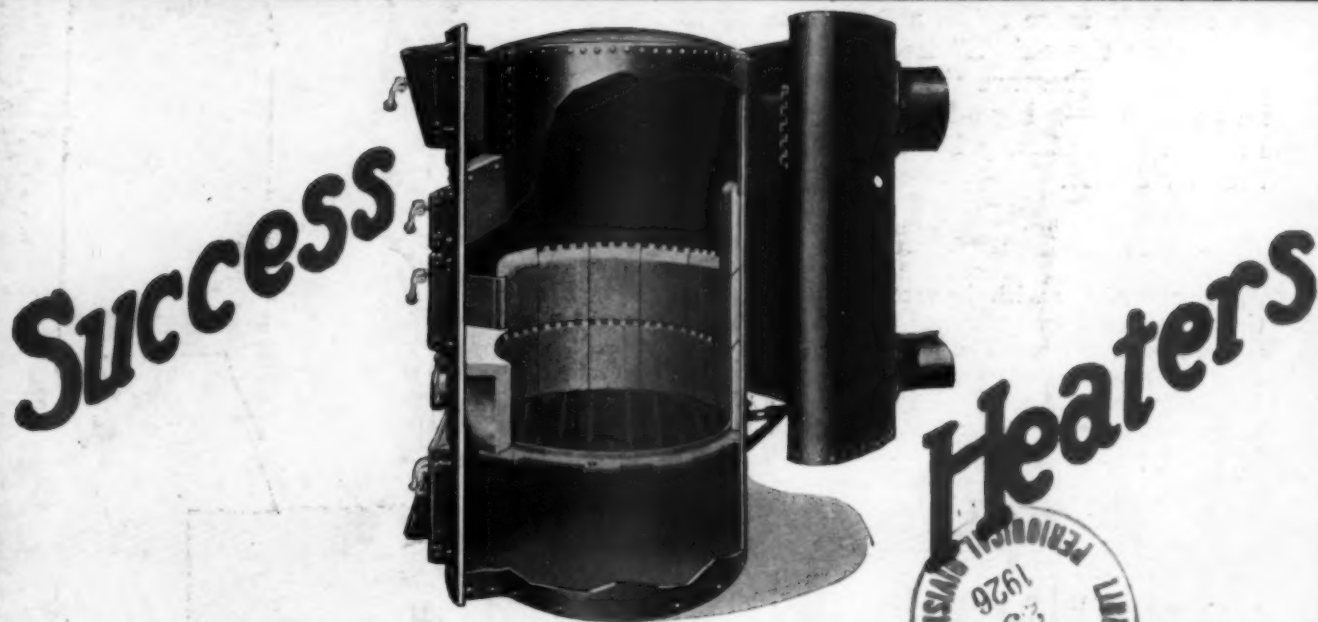
American Artisan and Hardware Record

Sheet Metal - Roofing - Warm Air Furnaces - Stoves

Vol. 91, No. 8

CHICAGO, FEBRUARY 20, 1926.

\$2.00 Per Year



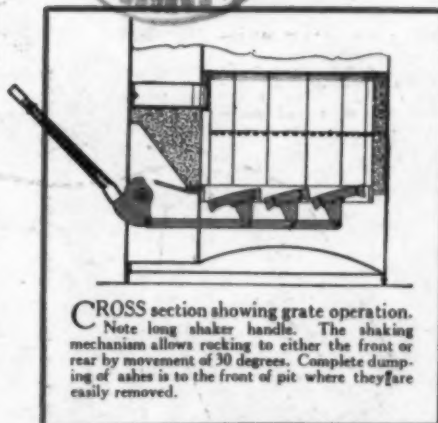
Quality Construction plus Superior Working Parts

SUCCESS sales are made not alone on the extra high quality of material used in Success Heaters and their type of design but also on mechanical features unmatched in other heaters.

Efficient and high grade trouble-proof grates are important. The user comes in daily contact with this part of the furnace and is apt to judge his entire heating plant by their operation.

The grates used in Success Heaters are far above standard. They are of the rocking, anti-clinker bar type, connected together by a tie-bar and shaking from the front.

Success grates are made of high grade iron and have a free air opening in excess of 50%. Exceptionally heavy and well braced at points of strain. This improved feature of Success Heaters, giving the user a convenient lever-operated high grade and fuel-saving grate is making more Success sales.



CROSS section showing grate operation. Note long shaker handle. The shaking mechanism allows rocking to either the front or rear by movement of 30 degrees. Complete dumping of ashes is to the front of pit where they are easily removed.



LET us tell you more about Success features—just write for complete catalog No. 11 which gives full detailed description and illustrations. Remember Success Heaters are sold under our TEN YEAR SERVICE BOND, a selling feature that GUARANTEES your customers efficient heating service. A selling feature that only Success quality can warrant. Have us tell you about it.



Success Heater Manufacturing Co., Des Moines, Iowa

Warehouses

Canton, Ohio

Spokane, Wash.

Oshkosh, Wis.

Pittsburgh, Penn.

New Mueller Snap-Lock Speeds Up Installation Work

Sheet metal men tell us that with the recently perfected Snap-Lock, now found on Mueller stack and furnace fittings, they can make better permanent installations in less time. With this new Mueller improvement it is possible to build any length of single stack without solder.

Because of more thicknesses of metal at the lock, the stack is more solid, although it takes up no more room than the old "S" hook connection. By applying but a slight pressure the stack may be snapped firmly into position—a big advantage in hard-to-reach places. Patents have already been applied for on this exclusive Mueller device.

New Line of Mueller Registers

In accordance with the recommendations of the Standardization Committee the new line of Mueller Registers are built 2" above the floor line. The new designs are made in both round and square corner styles, in six standard sizes, and in all finishes. The new 12"x13" size illustrated can be used for 12" pipes without moving the studdings. Greater free air area is afforded by this type of grille.

Write for New Catalogs and Prices.

L. J. MUELLER FURNACE COMPANY
193 Reed Street Milwaukee, Wisconsin

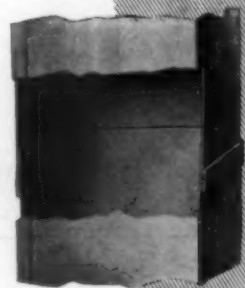
*Makers of Warm Air Furnaces, Steam and Hot Water Boilers,
Tank Heaters and Garbage Burners, etc.*

Warehouses: Boston, Baltimore, Detroit, St. Louis, St. Paul,
Minneapolis, Ft. Collins, Colo., Salt Lake City, Seattle.

Mueller Double Radiator
Furnace—a self-cleaning
warm air furnace with
more direct heating sur-
face than any other
furnace of equal grate
area.



Single Stack



Double Stack



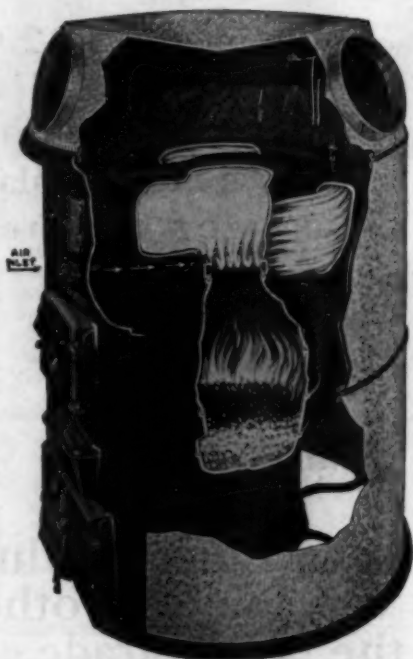
12"x13" Oxidized
Copper



MUELLER

You Can Increase! Your 1926 Business!

The SUPER-SMOKELESS Furnace is the only really smokeless furnace on the market. It brings satisfied customers and earns big profits for Dealers.



Cutaway View of
SUPER-SMOKELESS FURNACE

YOU can increase your 1926 Business by taking on the Utica line of furnaces. The Utica SUPER-SMOKELESS Furnace has definitely superior features found in no other furnace. It offers outstanding advantages to the Home Owner, and places the dealer above ordinary competition. You can get a real price for your work and reap larger profits with this remarkable furnace.

The new Utica Merchandising Plan will also bring more customers—sell more furnaces—and increase your profits. It has been thoroughly tested and is a *proved success*. Under this plan our representatives co-operate closely with our dealers and help them sell the furnaces they buy. It enables them to secure the largest possible amount of business and to secure satisfied customers who build future business.

It will mean Increased Business and Larger Profits to take on the Utica line of furnaces. Let us send, without obligation to you, full particulars about our SUPER-SMOKELESS Furnaces and Utica Merchandising Plan.

UTICA HEATER COMPANY

UTICA, N. Y.

Manufacturers of the

CHICAGO, ILL.

CELEBRATED LINE OF WARM AIR FURNACES FOR EVERY HEATING NEED



UTICA HEATER COMPANY, Utica, N. Y.

Gentlemen:

Please send, without obligation to me, complete information about your SUPER-SMOKELESS Furnace and the new UTICA MERCHANDISING PLAN.

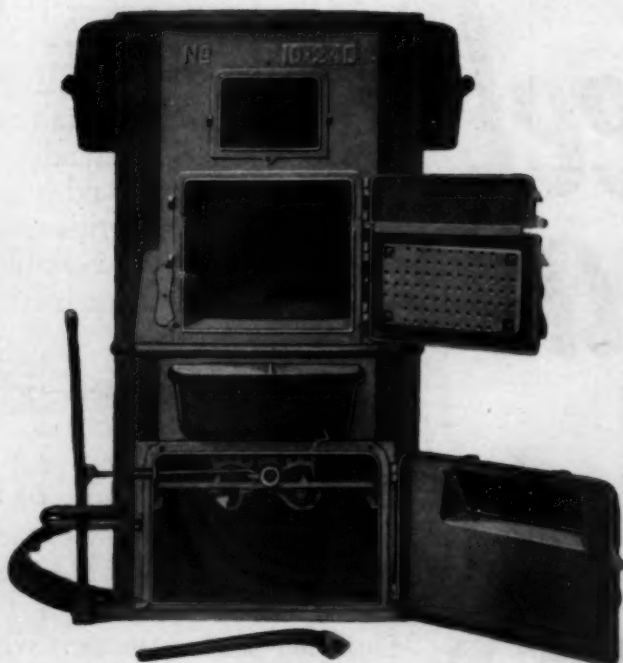
Name.....

Address.....

FZ-104

PENINSULAR FURNACE

Write for our complete descriptive catalogs and the Peninsular Agency plan.



Series 10-20D high quality throughout—a heating plant for the best homes.

**Leaders
for
over
Forty
Years---**

The Peninsular Furnace illustrated is way beyond other furnaces of the better grade.

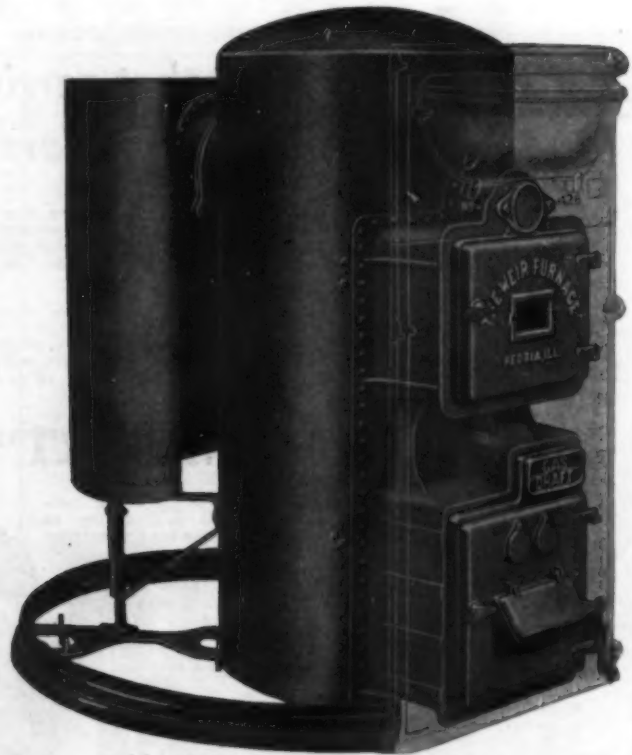
Such features of construction, general design, strength and workmanship as are found on the Peninsular 10-20D Series mean assurance of better business for you.

Look it over—then study it feature by feature in our catalog and learn why it's a leader.

The PENINSULAR STOVE COMPANY
DETROIT CHICAGO

Mention AMERICAN ARTISAN in your reply—Thank you!

Weir Steel Furnace



- 1 The biggest new Weir feature — notice the phantom view—the pouches or feed and ash throats extend thru the front. There are no door frames and no joint inside the casing. Doors are fitted direct to pouches.
- 2 Both pouches and doors are surface ground — absolutely perfect fitting. Notice lever handle — adjustable hinges. Always a perfect - fitting door with this new feature.
- 3 The feed and ash pouches are in one piece, which is air-tight riveted to the main drum. There is absolutely no possibility of leakage inside the Weir casing. The supports for the radiator sit on lugs—no bolts thru the drum.
- 4 The Weir Five Year Guarantee covers the entire furnace. Grates, fire pot and each and every part is covered by this guarantee. We make this guarantee direct with the user and it is a real guarantee with no strings. This generous guarantee is possible because we know that the Weir needs no replacing of parts within five years. Many 40 year old Weirs are still in service.
- 5 The Weir is the one furnace for Oil Burning, because of absolutely leak - proof construction, no dampers. Weir is fitted with special doors for Oil Burner installation or can always be converted for such use. The Weir will actually hold oil.

Improvements that put the Weir still further in the lead

READ the five points given at the left—notice that each Weir feature means something definite and valuable to the user and to you as the seller.

Remember that the Weir has never rested on its reputation of being the highest grade furnace made but rather has always been improved to maintain that quality which not only holds its reputation but adds to it.

Weir features are not just talking points but actual selling points. The Weir sells on absolutely high quality material and the highest type of efficient and exclusive heating design.

Read point 4 again.

The Weir guarantee is something you'll want to see—you'll want to know what we mean by a *real* guarantee, a guarantee by the makers of the Weir *direct* to the user.

The Weir has so many features that it requires a small volume to present each clearly with illustrations. We have had thousands of requests for this book—there is one (or more) for you if you just—

Write for
the



"Weir Book
of Facts"

The MEYER FURNACE Co.
Peoria, Illinois

The strong back that carries a big load for many years—

NOTICE this powerful back—these radiators on the "Home Comfort" are built on curved lines with no square corners. This construction provides immense and perfect radiation—the steel vertical tubes and the fire travel arrangement securing all the heat possible from the fuel consumed.

The Dust Box is one piece solid heavy casting with two clean-outs attached that protrude through the casing—no bolted or cemented joints. Notice the extra wide circuit of the radiators, allowing a free circulation of air around the rear part of the furnace, eliminating what has proven to be one of the weak parts in furnaces of similar construction. This is an exclusive feature of the

"HOME COMFORT"

WE have told you here only one part of the big Home Comfort story. Its entire construction is first quality in design and material. We want you to write now for our catalog which gives complete details.

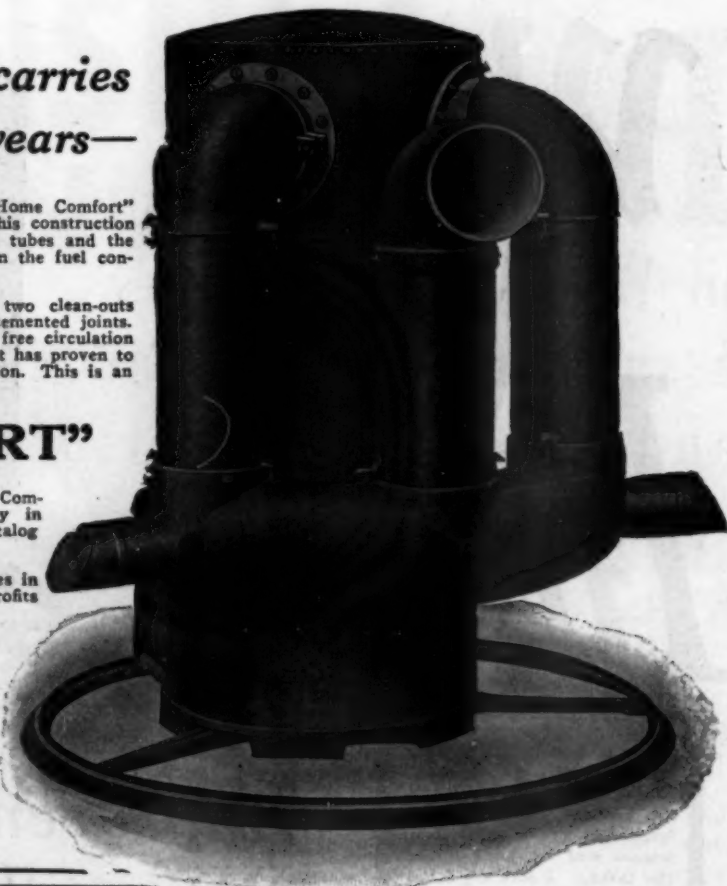
The agency for the sale of "Home Comfort" Steel Furnaces in your territory is bound to make more business and profits for you.

Your customers will boost the "Home Comfort"—they can't help it—its quality keeps them satisfied a lifetime.

Write today for our new booklet—"The Joy of Home Comfort" and a booklet called "House Heating"

ST. LOUIS HEATING COMPANY
2901-11 Elliot Ave. St. Louis, Missouri.

PITTSBURGH DISTRIBUTOR
Wagener Bros., 3805 East Street



The construction features of **BRILLION** FURNACES prove their quality

LOOK at these points of construction.

COMPARE them with the line you are selling—better yet, see the Brillion on your floor—you'll want to after you know the price of the Brillion.

Lever-Shaker Handle
Full Cast Front
Extra Large Double Doors
Extra Large Water Pan
Extra Large Ash Pit
Extra Heavy Corrugated Fire Pots
Extra Heavy Corrugated Dome
Large Cast Convertible Radiator with permanently tight joints.

THE way to better and more business is better profits on what you sell as well as quantity business. The Brillion enables you to get better business and assure your customers of high grade and reliable satisfactory service.

Have us show you—just send us your name now—

USE THE COUPON BELOW

Branches in Chicago, Ill., Minneapolis, Minn., Milwaukee, Wis., Seattle
BRILLION FURNACE CO., 200-300 Park Ave., Brillion, Wis.

----- Send this coupon today -----

Send me full details, prices and your catalogue No. 45.

Name

Address



THE BIG OPPORTUNITY for 1926 For FURNACE JOBBERS

Lies in
the
Agency
for

Grand

Warm
Air
Furnaces

Secure It Before It Is Too Late

Unrivalled Production Facilities Enable Us to Offer You a Furnace, Unequalled in Finish and Mechanical Precision—and at a Reasonable Price.

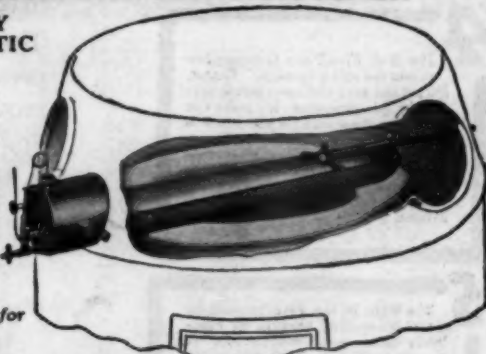
The Cleveland Co-operative Stove Co.
East 67th St. and Central Ave. Cleveland, Ohio

NATIONAL AIR MOISTENER

**ENTIRELY
AUTOMATIC**

Absolutely fool-proof, has few parts, can't overflow. Connects directly with city water. Very simple and highly efficient. Can be installed in any type of furnace quickly. Easy sales and good profits.

Write today for circular and prices.



NATIONAL AIR MOISTENER CO.
525 South 7th St. Minneapolis, Minn.

Say you saw it in AMERICAN ARTISAN—Thank you!

Perfect Combustion in Wiechert Furnaces assures maximum heat and economy of fuel!

A LARGE lower feed door and a smaller upper feed door are provided. The lower door is fitted with a projecting air blast admitting heated air. This mixes with the gases and smoke to produce perfect combustion of fuel. It creates the greatest amount of heat from any fuel used.

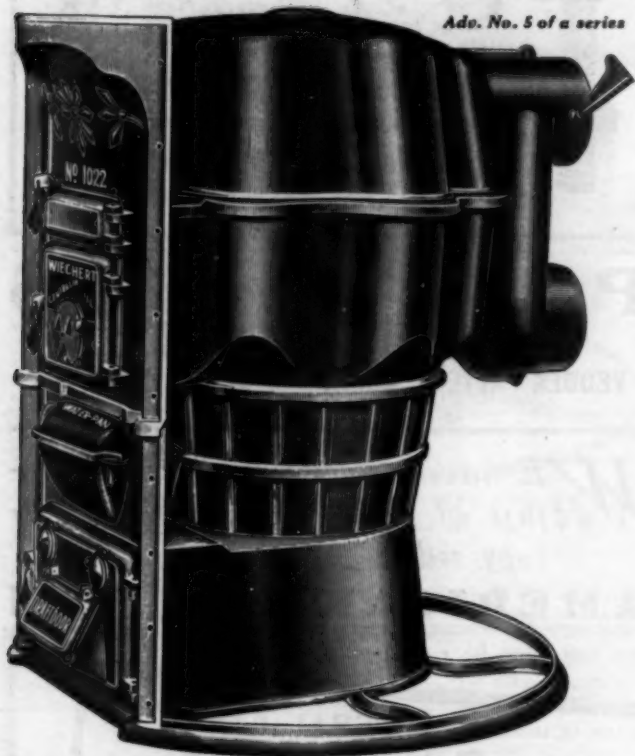
All Wiechert Furnace fronts extend to the top casing ring. The feed and ash pit doors fit tight against the flat front. Hot water coils can be placed in Wiechert Furnaces without interfering with operation.

Every Wiechert Furnace is mounted and fitted at the factory. It insures every customer an excellent, high grade furnace that will perform with entire satisfaction.

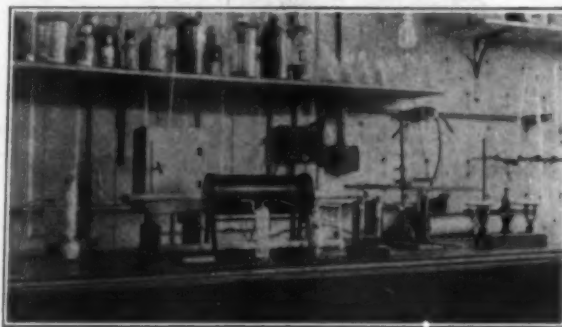
Write today for information on our other furnaces. You will find they are just as satisfactory—just as profitable as this No. 1000 series Pipe Furnace.

St. Clair Foundry Corporation
Centralia, Ill. Belleville, Ill.

Adv. No. 5 of a series



No. 1000 SERIES PIPE FURNACES



*A partial view of our
Testing Laboratory*

NIAGARA Furnaces

are the product of accurate knowledge—not guesswork.

When we guarantee them as to workmanship and materials we know and you know that they will exceed in performance even our guarantee.

Laboratory Tested From Start to Finish

and merchandised so that you can profit by being a Niagara Dealer. Send in the coupon today and know more about Niagara Dealer Profits.

The Forest City Fdy. & Mfg. Co.
1220 Main Avenue Cleveland, Ohio

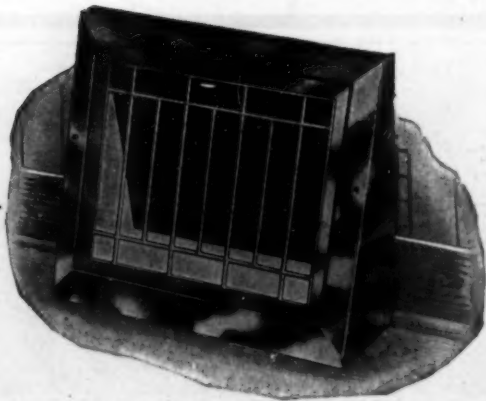
A. A.

The Forest City Foundry
and Manufacturing Co.
Cleveland, Ohio

Send us complete information on Niagara Furnaces at once.

Name

Address



Yes, we admit

*it's Attractive
it's Efficient
it's Economical
it's the Vol-Yum register*

**for volume Furnacework
for volume Profits.**

Mail coupon today for interesting prices and information.

**Rock Island Register Co.,
Rock Island, Ill.**

YOU may send your interesting prices and information on Vol-Yum registers.

Name

Street No.

City and State.....



**WRITE
FOR
OUR
CATALOG**

**High Grade
Finely Finished
STOVE TRIMMINGS**
Original, distinctive designs

IF YOU want superior quality and real service at prices that can't be beat—
SEE US NOW

THE FANNER MFG. CO.
Brookside Park CLEVELAND, OHIO

**IRON AND WOOD
STOVE PATTERNS**
QUINCY PATTERN COMPANY
QUINCY, ILLINOIS

**PATTERNS FOR STOVES
AND HEATERS**
THE CLEVELAND CASTINGS PATTERN COMPANY
CLEVELAND, OHIO

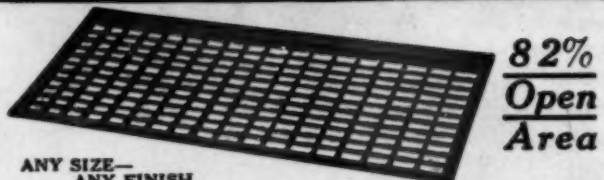
Send for our
illustrated book
of order
blanks

NORTHWESTERN

REPAIRS
FOR ALL
STOVES
FURNACES
BOILERS

The Oldest and Largest
STOVE REPAIR CO., Chicago

"FABRIKATED" REGISTER FACES



**82%
Open
Area**

ANY SIZE—
ANY FINISH

INDEPENDENT REGISTER & MFG. CO.

300 Perry Payne Bldg., Cleveland, O.

SAVE MONEY AND FLOOR SPACE

BOLTS

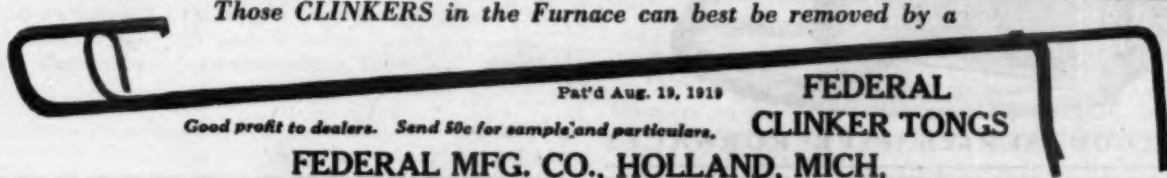
WE MANUFACTURE A COMPLETE LINE OF BOLT PRODUCTS, INCLUDING STOVE BOLTS, CARRIAGE BOLTS, MACHINE BOLTS, LAG BOLTS, NUTS, ETC. ALSO STOVE RODS, SMALL RIVETS AND HINGE PINS. CATALOG ON REQUEST.

THE KIRK-LATTY MFG. CO.
1971 W. 85th St. Cleveland, O.

PATTERNS
FOR STOVES AND HEATERS **FIRST-CLASS
IN WOOD AND IRON**
VEDDER PATTERN WORKS **ESTABLISHED 1835** **TROY, N. Y.**

*WE have a new Book Catalog—
just off the press—write for your
copy today.*

AMERICAN ARTISAN



Those **CLINKERS** in the Furnace can best be removed by a

Pat'd Aug. 19, 1919

Good profit to dealers. Send 50c for sample and particulars.

**FEDERAL
CLINKER TONGS**

FEDERAL MFG. CO., HOLLAND, MICH.

When writing mention **AMERICAN ARTISAN**—Thank you!

Unusual Value

IN VERNON'S Furnaces you get and give unusual value. You approach prospects with the confident knowledge that you are offering them exceptional quality in materials, design and workmanship.

VERNOIS Pipe and Pipeless FURNACES

are perfect fitting and give superior heating service because of such distinctive features as the large, round, self-cleaning radiator, lock cup joints, heavy corrugated firepot, full measurements and perfect proportioning of parts.

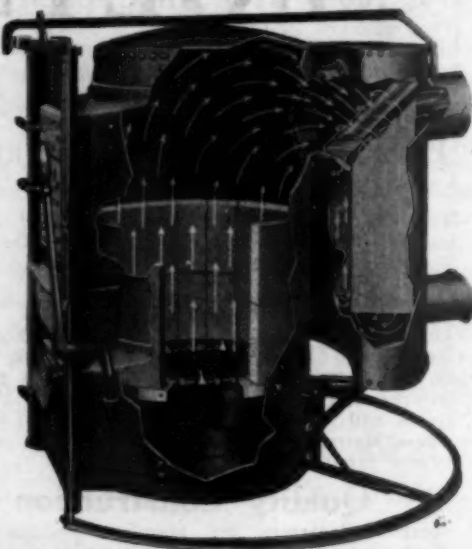
Write us for Catalog A6 and prices

MT. VERNON FURNACE & MFG. CO.
MT. VERNON, ILL.



The
Better
Steel
Furnace
with more
and
Better
Features

The
Lever
Shaker
and
Pouches
extending
through
front
are some
reasons why
the—



MARSHALLTOWN Steel Furnace

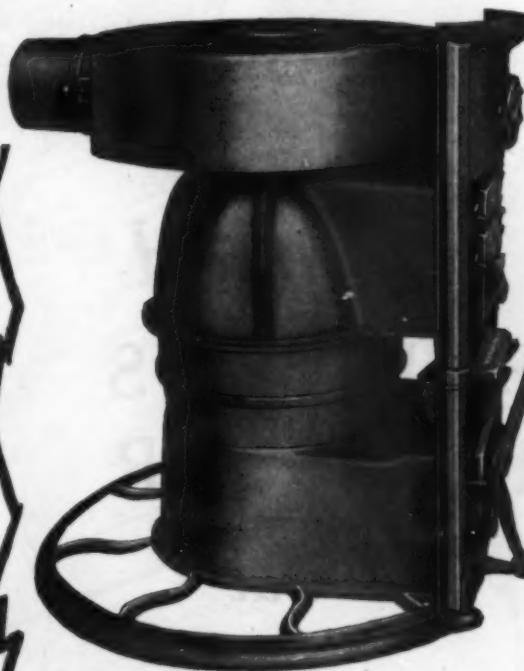
is making real sales and profits for our dealers. Study the quality construction of the Marshalltown—notice also the Gravity action direct draft damper—highly efficient Air-Blast—large doors and a real large size water pan.

The design throughout is for substantial construction, real heating service and operating convenience. Your customers will see the value of each Marshalltown feature—every one is a real feature—no frills on the Marshalltown.

We have a real interesting sales agency proposition.
Want to know about profits and sales? Write today

MARSHALLTOWN HEATER COMPANY
MARSHALLTOWN, IOWA

The "GEM" of the World



OVERSIZE

YOU never saw as high grade a furnace as the "GEM" in the competitive price class that was oversize—the "GEM" is and we invite you to measure any "GEM" you run across and see for yourself.

High Quality—Low Price

ALL of the features demanded today are incorporated in the "GEM." It was designed by leaders in the industry—by a house that knows what is needed and able to provide it—at a price that enables you to get business and profits.

Notice the "GEM" Features

One-piece radiator—made by a new, better method of moulding with green sand core. Cleanest castings possible and of absolute uniform thickness.

Extra large and heavy combustion chamber. Immense heating surface. Clinker proof grates operated by easy working, convenient lever shaker handle.

Large, correctly shaped ash pit, one-piece base with solid base ring attached. Easy to erect and case—let us tell you why the "GEM" is easier to case than any other furnace on the market.

Write today for complete "GEM" construction and agency details

ROBINSON FURNACE CO.
228 West Lake Street Chicago, Ill.

100% Free Air Capacity

The Improved STEARNS REGISTER

Just Out—



THE finest job of free air capacity designing on the market.

No loss of strength—

No loss of neat appearance—

It's the one register that gets the air across and still does not look like a hole in the wall. Write for list of capacity sizes today.

Our production facilities have been increased and we can now take care of additional business. See the Improved Stearns Register now.

Our selling plan saves you money.

Write for our catalog and prices.

Features

100% Free Air Capacity

The enlarged openings have increased the free air capacity so that we now can guarantee full capacity. For example 9x12 Baseboard Register has 73 sq. inches and is intended for 9" pipe which has a capacity of 63".

Exclusive Patented Operating Device

The only operating device of its kind on the market. It does not use springs or tension. Simple and effective.

Superior Finishes

The highest type of finishing is used on Stearns Registers. They are furnished in all the regular electro-plated effects. Also finished in popular lacquer finishes such as Brush Brass, Antique Brass and in perfect replica of Oxidized Copper. These lacquer finishes sell on same list price as White Japan.

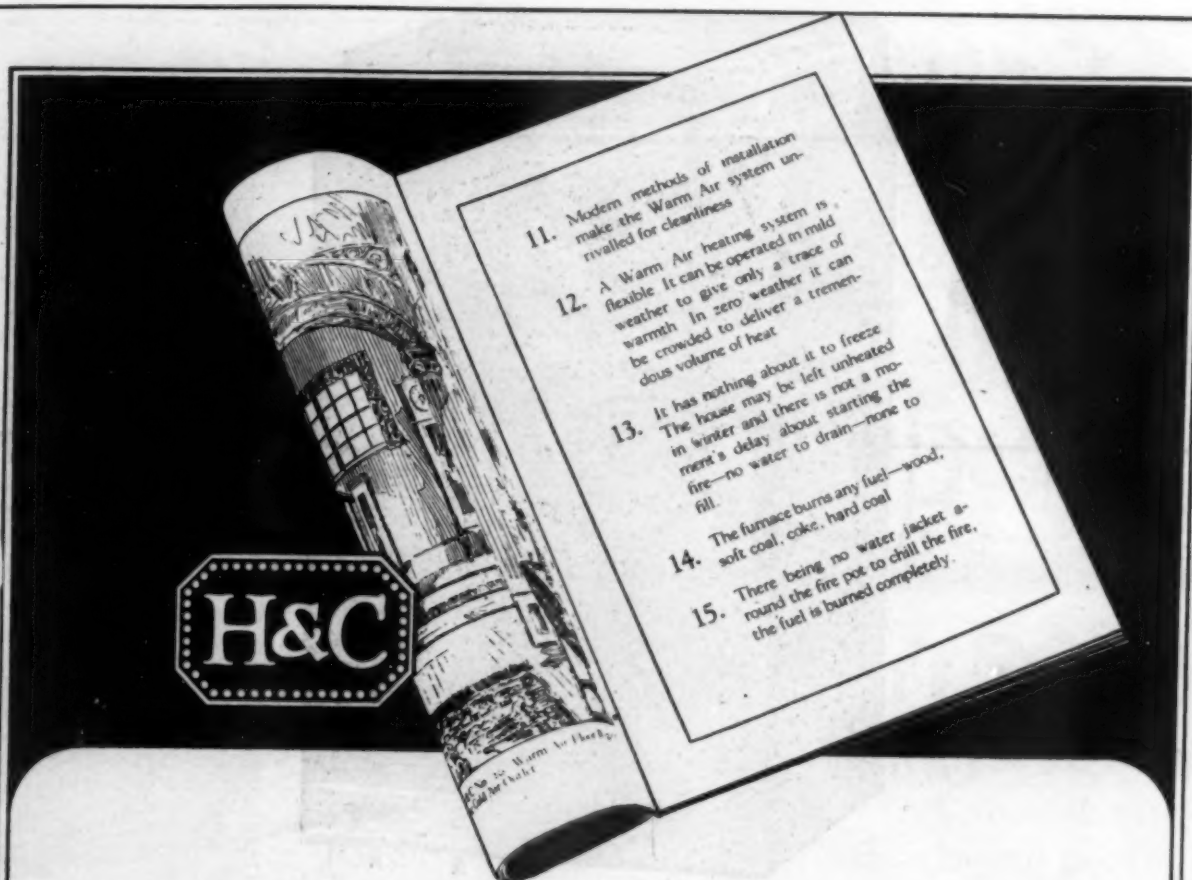
Quality Construction

Stearns Registers are sturdily constructed in every respect. They are exceptionally good looking and suitable for the finest homes.

Sales Policy Lowers Cost

Let us send you a sample together with our prices. We will show you how you can buy first quality registers at a saving by taking advantage of our sales policy.

STEARNS REGISTER COMPANY
617 Fort Street
Detroit, Michigan



CO-OPERATION!

THIS company is solidly in back of the Warm Air Heating industry. It is a member of The National Warm Air Heating & Ventilating Association.

We believe that by co-operation all of us, Furnace Manufacturers, Furnace Contractors, and Dealers, will reap increased benefits.

The booklet entitled "Heating Your Home" which we have published and are distributing free of cost to Furnace Contractors and Home Builders is a practical evidence of our co-operation. The demand for the booklet has been overwhelming since our announcement last month. Furnace Builders are using them as part of their salesmen's outfit. Furnace Contractors are using them to help sell warm air furnaces. Building Contractors are using them to sell home builders on the warm air heating method. They will help boost your business, too. Requests should be limited to the number of booklets that can be used to advantage.

Incidentally, our main business is making warm air registers—the kind that help make the warm air heating system the best system for homes. Four of our line are illustrated below. You can use smaller sizes in H. & C. Registers because of their larger air capacity.

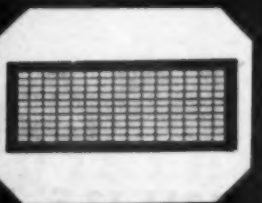
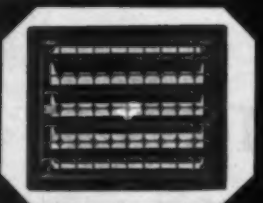
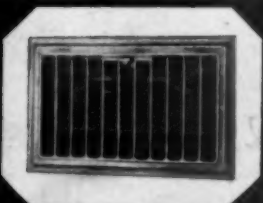
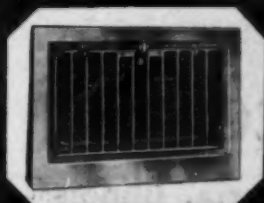
The Hart & Cooley Company New Britain, Connecticut

No. 170

No. 377

No. 200

No. 255





THE NATION'S BEST FURNACE PIPE FOR 69 YEARS!

It's Handy by Name!

It's Handy to Get!

It's Handy to Work With!

F. MEYER & BRO. CO.

1311-13 S. Adams St.

Peoria, Illinois



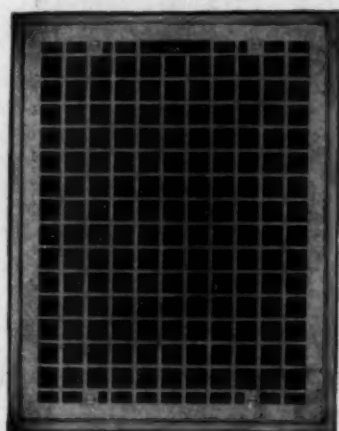
A Face Shoes Can't Push In

THE faces of T&B Registers are heavy and strong enough to stand the wear and tear of rough usage. Put them where you will, exposed positions in hallway or nursery, and they'll show shoes and furniture the stuff they're made of.

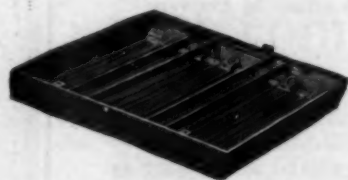
Twelve gauge steel, that's what it is. Heavier than necessary in some cases but we like to play safe—for your sake as well as our own.

For example—take the bottom of these registers. We put four re-enforcing bars under the face. Just an extra margin of safety. Don't forget either that this is a bevelled bottom—the only one on the market. Easy fitting makes easy work.

We'll gladly send you a catalogue of the T&B line—steel, semi-steel, and cast registers all made by us.



*Style 70
All-Steel Register*



All-Steel Bottom

TUTTLE & BAILEY MFG CO.

Makers of Registers for 80 years

36 Portland Street, Boston

441 Lexington Avenue, New York

1123-29 West 37th Street, Chicago

704 East 18th Street, Kansas City

Bridgeburg, Canada

T & B Registers and Grilles

Mention **AMERICAN ARTISAN** in your reply—Thank you!

Published to serve
the
Warm Air Furnace,
Sheet Metal, Roofing,
Stove and Hardware
Industries

Founded 1880

American Artisan and Hardware Record

Yearly Subscription
Price:
United States \$2.00
Canada . . . \$3.00
Foreign . . . \$4.00

Published EVERY SATURDAY at 620 South Michigan Avenue, Chicago

EDITORIAL AND ADVERTISING STAFF

Etta Cohn
J. F. Johnson

G. J. Duerr
Frank McElwain

Eastern Representative: W. C. White, 1478 Broadway, New York City

Vol. 91, No. 8

CHICAGO, FEBRUARY 20, 1926.

\$2.00 Per Year

Table of Contents

Page	Page
Sheet Metal Department.....17 to 30	Adoption of Standard Code, by E. B. Langen- berg 34
Indiana Sheet Metal Convention, by George J. Duerr 17	Hardware Department36 to 46
Fur-Mets Hold Successful Meeting..... 25	Illinois Hardware Men Meet at Chicago, by J. F. Johnson 36
Iowa Sheet Metal Men to Hold 3-Day Course at Ames, by J. F. Johnson..... 27	Illinois Exhibits 38
Pattern for Horizontal Prong Chimney Cap... 28	Minnesota Hardware Association Meeting.... 39
Notes and Queries 30	Pennsylvania Hardware Meeting 40
Editor's Page 31	Ohio Retail Hardware Association in Conven- tion at Cleveland 43
Why Louisville Delegates Went to Indianap- olis 31	Ohio Exhibits 45
Appreciating Need for Code..... 31	Coming Conventions 46
Random Notes and Sketches, by Signey Arnold 32	Markets 48
Solution to Bogue and Johnson Problem..... 33	

AN ACHIEVEMENT

An explanatory note regarding service to readers of AMERICAN ARTISAN. This paper is now nearing the completion of a half century of service. For almost fifty years it has catered to the needs of the men in the industries which it represents. At no time during its long and successful career has AMERICAN ARTISAN been in a better position to render complete, adequate service to its readers than it is today. In addition to the matter contained in our regular weekly publication, we maintain Service Departments for the use of our readers. If you have a problem to solve, we courteously invite you to submit it to us for solution. In what better way can we learn of your problems than from you direct?



Now
you can
buy



The Master Brand on Sheet Steel is a certificate of quality.

SHEET STEEL

with complete assurance of uniform quality

THE Master Brand appearing on Sheet Steel certifies that the material so stamped has been made to the MASTER BRAND quality standards.

The Master Brand has been adopted by the Sheet Steel Trade Extension Committee after two years' study of a means to insure consistent quality. It assures to the public and to the fabricator of Sheet Steel products, dependable quality and service; it protects the manufacturer who provides a product having a recognized definite quality.

The Master Brand is your evidence that the Sheet Steel you buy is of this standard quality. The Brand can be applied only by mills who have been licensed to use it and whose product is subject to regular inspection. It represents the quality standard of the Sheet Steel Trade Extension Committee... and this Committee assures you the standard will be maintained.

Dominating advertising through national, architectural and building trade magazines will establish the significance and value of the Master Brand with distributors, fabricators and users of Sheet Steel and Sheet Steel products.

The galvanized coating on Master Brand sheets is so heavy that they should not be subjected to extreme forming operations unless special measures are taken to prevent damage to this coating.

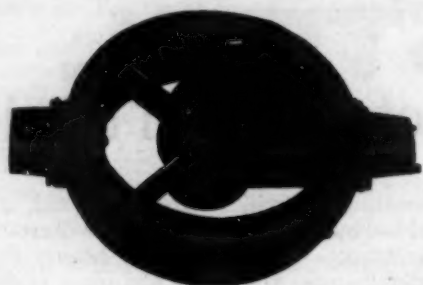
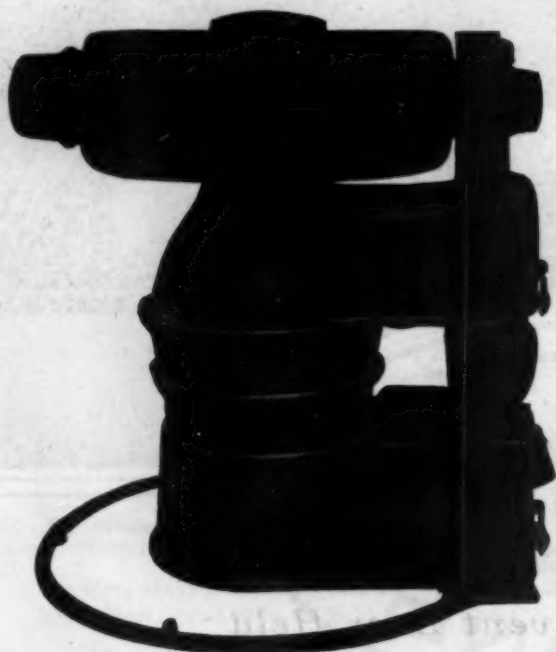
In every branch of production and commerce, in the automotive field, in the electrical industry, in railroad service, on the farms of America, in office, factory and home—wherever Sheet Steel is used—every buyer will know that the Master Brand stands for economical and lasting service.

Existing markets will be increased, new markets will be established. The progress will be built on the solid foundation of that economy and value which follows the use of quality.

SHEET STEEL
TRADE EXTENSION COMMITTEE
OLIVER BUILDING
PITTSBURGH PENNSYLVANIA

Mention AMERICAN ARTISAN in your reply—Thank you!

INTERNATIONAL *ECONOMY* BLUE FRONT FURNACE



THE RADIATOR

The radiator is unique; totally different from anything in use today. The wide inside space causes practically 50% of the air to pass toward the center, over the hottest part of the fire.

This is one of the reasons for the high efficiency of the furnace.

Low in First Cost; Thrifty With Fuel But Lavish With Heat.

Rich Blue Front. You ought to see this new INTERNATIONAL Furnace to fully appreciate it. The front is finished in a rich blue which greatly adds to its attractiveness and salability.

Unusual Air Capacity. The casings are unusually large with correspondingly large air passing capacity. The proper amount of heating surface supplements the large free air capacity.

Castings Extend Thru Front. The front is purposely made narrow to reduce the amount of heat radiated into the cellar. Ashpit extension, feed chute and cleanouts extend thru the front to eliminate gas or dust leakage.

Quantity Production. These are just a few of the high spots. The wonderful value offered in the Economy is made possible by quantity production and modern manufacturing methods.

INTERNATIONAL HEATER CO.
Utica, N. Y.

() Please send catalog of new ECONOMY FURNACE.

() Please quote prices.

Use approximately.....Furnaces per year.

Name

Address

INTERNATIONAL HEATER UTICA, N. Y. COMPANY

NEW YORK

CHICAGO

CLEVELAND

DETROIT

NASHUA, N. H.



American Artisan and Hardware Record



Vol. 91.

CHICAGO, FEBRUARY 20, 1926.

No. 8.



Group of Indiana Sheet Metal and Warm Air Heating Men and Women Enjoying Banquet and Entertainment in Roof Garden, Hotel Severin, Wednesday Evening, February 17, 1926

Indiana Sheet Metal Fraternities Review Work of Year at Indianapolis

*Relations Extremely Cordial—Banquet
Most Successful Event Ever Held*

By GEORGE J. DUERR

AN atmosphere of seriousness and intensity of purpose, tempered with an air of good fellowship, cordiality and sociability characterized the opening session of the annual convention of the Sheet Metal Contractors' Association of Indiana, Inc., which occurred in the Roof Garden of the Severin Hotel, Indianapolis, February 16. The convention lasted until Thursday, February 18. It was a joint meeting of the Indiana Sheet Metal Contractors, the Fur-Mets of Indiana and the Indiana Warm Air Heating and Ventilating Association.

The turnout at the opening session was such as to give adequate proof that the sheet metal contractors of Indiana are extremely interested in the future development of their business. They are realizing more each year that they must solve their problems jointly with other men in the same line of work rather than to attempt it individu-

ally. Hence their presence at the meeting.

The roll call of officers conducted by Secretary Leslie W. Beach revealed the absence of First Vice President Earl Clinton, East Chicago. It was explained, however, that Mr. Clinton's absence was due to the death of his mother. A motion was passed to the effect that a suitable letter of condolence be prepared and forwarded to the Clinton family.

President Mattingly and Secretary Beach then made their annual reports. Secretary Beach's report consisted chiefly in a financial statement of the association.

Annual Report of President Joseph Mattingly.

President Mattingly's address contained some very pointed recommendations for the good of the Association and its members. It follows:

In reviewing the activities of the

association during the past year, it is not for us to scrutinize too carefully the accomplishments of the past. On the other hand, it becomes our duty to prepare ourselves for the future. You of course, are aware that in the past year our association has become an incorporated institution, in accordance with the laws of the state of Indiana.

This forward step in many ways removed the old organization and put in the field in its stead a new association. We will now be obliged to arrange a set of by-laws and constitution to govern our organization. I call your attention to two articles which I believe we should give serious thought.

First, the dues. We must not be too liberal in stipulating the amount of dues to be paid by each member. It is necessary to have sufficient funds at all times to meet the obligations of the association. The dues are the only source of income at the

present time.

Secondly, I would like very much to have the method of selecting the Secretary changed. May I suggest that this method be changed so that the selection of the secretary be removed from the elective offices and placed in the hands of the directors and made an appointive office? The officers should keep in direct touch with one another through the Sec-



Joseph E. Mattingly, Retiring
President Indiana Sheet Metal

retary, and to do this the Secretary's office should be situated in the same locality that the presiding officer resides.

The membership of our association should be increased. However, there should be some stipulation as to who will be the members, what our duties are, both to the association and the industry at large should be made plain to prospective members. I do not feel that anyone should be refused a membership that can qualify. Applicants for membership however, should come up to certain requirements. An investigation to determine whether they are eligible to join us should be made in every case. You understand that the sheet metal industry has practically no Code of Ethics or requirements, unless it would be nerve and money. In other words, most anyone can become a sheet metal contractor, and it is to the detriment of the industry that such practices are permitted. We must give this more thought. It keeps the whole industry poisoned at all

times, and it reflects on every one of us. I often think that some technical requirements should be made of us before we are recognized as fit subjects to be affiliated with the industry. These are the things which we should consider seriously in selecting members. When we do this and put the same in action, we will naturally strengthen our position with other societies and organizations and become a factor as we should. By doing this, we will eliminate many of the unfair practices which are now in vogue in our industry.

We so often hear of complaints about unfair trade practices. We criticize those who are furnishing us materials for certain acts. We criticize the manufacturer for his practices. We do not want to be too quick to criticize without first offering some substantial method to correct such acts. In other words, if we find objections to the practices of others, let us not emulate them, but try to practice what we preach. If there are reasons to complain, I believe that a way can be arranged to correct any unfair methods that are used. The association can take a firm position in matters of this kind and gain their point if they act fearlessly, but be sure we are right before we attempt anything.

We have with us in this convention an organization which represents the Jobbers and Manufacturers of Sheet Metal materials and I want it to be distinctly understood that my remarks are not intended as a reflection on any of their acts. I have the highest regard for them and shall always believe that they are at all times willing to co-operate with us in any of our efforts.

In the past few years, through the organizations of the manufacturers of sheet metal materials and kindred products that are related to our own industry, the position of the sheet metal and warm air heating contractor has been indeed greatly advanced. We must keep awake and at all times prepared to meet the many opportunities that present themselves through these channels. It is one way we can express our

appreciation for their acts. Let's do this and do it well.

Urges Attendance at Louisville Next May.

The national association as I see it, has made great advancements in the past year or so. It seems to have taken on new life and it has a new spirit. It has evidently become a bonafide sheet metal contractors' association operated and maintained by them, its acts indicate it. We should not feel unkind towards this parent organization at any time. Instead of standing out and watching it act and then express our opposition to some of the things that happen, let us all assemble as an industry should and visit its sessions at the convention in Louisville next May. Let us all take an active part in this convention. I am sure the program will be worth while. I am acquainted with the city in which it will be held, knowing its traits, its hospitality and its character, I know that a good time is in store. Let us all



Charles Gatz, Second Vice President
Indiana Sheet Metal

arrange to be on hand. We will be led by our illustrious past president and first vice president of the National Association and it will be a great opportunity for us to express our appreciation for his past acts by doing all in our power to elevate him to the highest position this parent organization can confer on any man within its ranks. The gentleman of whom I speak is none other

than our ever faithful Joseph C. Gardner.

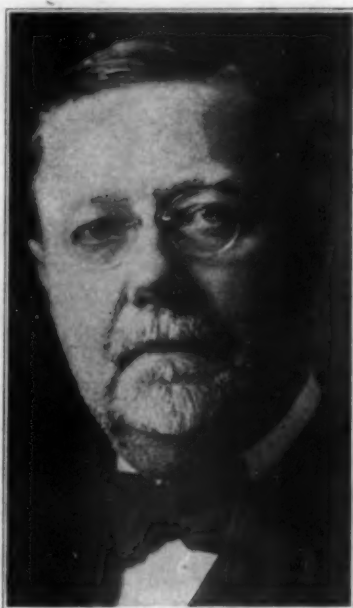
With the Indiana Warm Air Heating and Ventilating Association present, it pleases me to know that they are as they should be, our friends, and that they have joined with us in this convention. I trust that they will feel likewise towards us. In fact, I hope they will like us so well that they will become a part and party of our organization, since our interests are so closely allied. We want them to understand that we will cooperate and assist them in every way we can. Our moral support as well as physical and financial is at their disposal. We want them with us and we hope they feel that way towards us.

Business conditions at the present time have the appearance of being good. It may be a little too early to predict the outcome for the entire year, but generally I believe we should look forward to a better year than 1925 was. By this I mean that there will be more business in our line and I hope that one year hence we can say that such is the truth.

The labor situation, as it usually does at this period of the year, is restless. The result is that we are handicapped at times by not knowing just what they will demand or want to satisfy them for the coming year. However, we here in this city (Indianapolis) do not anticipate any serious trouble and certainly no delays or tie-ups caused from disagreements in the building industry. It is generally understood that wages have reached their peak in the building industry.

In speaking of the labor situation, it brings to my mind the subject of apprentices, which has been discussed pro and con so much in some localities. I trust that you will discuss this subject at these sessions, I think it is a good one, and there has always been many good points brought out by these discussions. Also let us give our own acts and qualifications a little thought as we go along and see whether we should not take a little apprenticeship training too along business lines, trade practices, etc.

We have here in this state, Purdue University, an engineering school that is second to none in this country, which I understand is giving the building industry considerable thought at this time. The institution is owned by the state of which you and I are a part and we should not only assist, but we should also be selfish enough to absorb all of the advantages it offers. Some of the industrial associations of the state have derived great benefits from short courses promoted and carried on by this institution in the past few years.



Joseph C. Gardner, Past President and Director

It is no joke that the educational system which we have in this age is elevating the present generation intellectually to a point where a man in business today must have the ability to hold his place in the sun. We should therefore not overlook any opportunity that we may have to elevate our position not only in our own industry, but with the professional element at large whom we come in contact with at all times.

The domicile of this association is now located in Indianapolis. I am opposed to it being moved from the capital city, not necessarily because I myself am a resident, but because I think that is where it should rest. However, to put the right kind of life into the association, create a

greater interest, broaden it more, cause it to function perhaps much better than it has heretofore, I am going to suggest that in selecting the officers of this association for the ensuing year, that you elect men for the major offices who are not residents of the city of Indianapolis. Some of you may take exceptions to this suggestion and have good reasons for so doing but I am of the opinion that there is not one of you who should not be given an opportunity to hold an office.

We have been organized for an honest cause and we are trying to perform it faithfully, I have done my best and have no apologies to make, and don't believe I would express them if I had. There are many good men who could do better perhaps than I have done, and if you are forced to look into space when you are looking for some one to lead your organization, will say that I have several in mind that I could name and I will furnish the list to anyone that wants it. You would approve them, I am sure.

Aside from discussing the many things that we should do for our industry, let us bear in mind that we are citizens of the state of Indiana, and as stated before operate under its laws. We have a duty to perform outside of our organization which we must not overlook. We must cooperate with other associations and organizations and with society in general for the good and welfare of our fellowmen in this State.

Let us stand by Indiana and all that she holds to be good and true. We are right at this time trying to boost our state to the utmost to eliminate some of the evils that come into its life.

In closing, I want to thank the officers who have served with me, the membership at large, the officers and members of the two associations that are here with us, and every one for their support and hearty cooperation shown me during the past year. They have never refused to assist at any time. I also want to thank the trade papers for the many things they have done for

our organization. It is a glory cast upon me which I shall ever appreciate. *My last words are that we hold fast to all that we have, for here is the base, there is the objective, let us keep going until we reach it. Let no one fall by the wayside.*

A resolution was adopted to the effect that because of the similarity of interests existing in the purposes of the Sheet Metal Contractors' Association of Indiana, Inc., and those of the Indiana Warm Air Heating and Ventilating Association, the two organizations be consolidated. This was the pith of a recommendation by the Board of Directors to the As-

secretary, Mr. C. L. Patterson, and also Mr. George L. Bennett. Mr. Bennett is as you know a member of the Advisory Board of the National Association of Sheet Metal Contractors.

In commenting upon the power of the committee Mr. Rogers mentioned that 93 per cent of all the sheet steel mills in the country were backing, and that it advertised in 34 magazines having a combined circulation of ten million. One of these 34 as you know is AMERICAN ARTISAN.

Having identified his organization Mr. Rogers delved into the reasons

posing camps. These conditions he said it is the committee's intention to change. It has the power and influence to do so and will exert every force to bring about the change.

Mr. Rogers spoke of the enormous possible margin of profit which the sheet metal contractor could make were these building laws modified to include sheet steel. To illustrate, he cited the case of the sheet metal garage and the economies that could be effected were the sheet metal men permitted to build them. According to his figures the difference in cost is enormous. The maximum cost of a sheet metal garage would be in the neighborhood of \$300.00 while the next nearest competitive material, the cement block, came to \$800.00 and then on to \$1200 and \$1500 for brick. If these figures are correct, and there is no logical reason to believe them otherwise than accurate, the enormous margin of possible profit for the sheet metal man is at once evident. Nor is there any logical reason why he should not be getting the profit.

Mr. Rogers touched upon the well known fact that even boards of fire underwriters are not as impartial as the public is led to believe them to be. This the committee must also correct.

Summing up the whole aim of the Sheet Steel Trade Extension Committee in a few words its ultimate aim is to show the sheet metal contractor how he can make more money by increasing the legitimate uses of the product in which he deals. "Until it has done that one thing, it has not accomplished its objective," said Mr. Rogers.

The plan of the Sheet Steel Trade Extension Committee has the seed thought that service to others is the most effective self-help.

The committee has no sheets to sell.

Its entire activity promotes the prosperity of all distributors and fabricators who use sheet steel as merchandise, or as raw material.

This work has been built with care, rather than with haste, and



The Cut of the Master Brand

sociation arrived at a meeting held by them the previous evening. A motion was passed that the Indiana Warm Air Heating and Ventilating Association be notified of the action taken. The committee appointed was Joseph C. Gardner, Charles K. Strassner and W. A. Brown. At a subsequent meeting of the two boards it was decided not to do anything at this time.

The treasurer's report was made by Charles A. Tharp and turned over to the auditing committee for audit.

Harry S. Rogers of the Sheet Steel Trade Extension Committee, Pittsburgh, was introduced. The keynote of Mr. Rogers' address was the aims, objects and accomplishments of the Sheet Steel Trade Extension Committee. In relating the factors back of the committee Mr. Rogers incidentally mentioned its

for creating this organization, as well as some of the problems which it hopes to overcome. He said that the committee had been formed to increase the uses of sheet steel; to ferret out and overcome by education the objections to the use of sheet steel.

During his address he brought home the point that competition within the sheet metal industry was a competition between industry and industry and not between one sheet metal contractor and another in the same town. In illustrating his point Mr. Rogers showed how one industry would discredit another industry's products for the sole purpose of increasing the sale of its own.

He also pointed out the fact that many local building laws were unjust to the sheet metal man for the sole reason that local councils were influenced by the factors in the op-

the vital element of time permitted to exercise its ripening power.

In figures, the year and a half of the plan operation show an impressive record of activity; with a mounting tide of responsive interest from all parts of the country, and including a pretty complete list of all things made from sheets for industrial, commercial and domestic use.

Now (following our simile), comes the "bloom."

The Sheet Steel Trade Extension Committee is ready to announce and release a Master Brand, which can be used by all member companies. The integrity of this brand is guaranteed by the quality of product upon which it is authorized to appear, and this quality is upheld by constant inspection and tests of the Master Brand sheets.

The potential power of this steady drive for better markets for better sheet steel may be gauged by an understanding that it has back of it over 93 per cent of the independent sheet steel production of the United States, or, over three and a quarter million tons of the total five million tons of sheet steel output.

This Master Brand will first be used on the galvanized sheets produced by member companies and will be extended in its application to other lines of sheet mill products.

This "bloom" on the plant of courageous vision puts the sheet steel industry squarely in the front rank of those who are making a good product, and are likewise marketing a very real service value.

Tuesday Afternoon

The By-Laws Committee had brought in for adoption recommendations for the new by-laws. These were read section by section and voted upon in that manner. Each member of the association will receive in a short time a copy of the by-laws as they were amended and adopted at this convention. They should be carefully read and compared with the old set. These amendments were made necessary by the incorporation of the association.

Edwin L. Seabrook, secretary of the National Sheet Metal Contractors' Association, was the first speaker at the afternoon session. The topic assigned to Mr. Seabrook was "Get Behind a National Campaign." The point around which the subject of the address revolved was that all things in the present day and age required concerted action on the part of the group comprising the industry in order to bring them to a successful termination. No longer can the individual stand aloof and alone and hope to accomplish things. He must align



Leslie W. Beach, Secretary Indiana Sheet Metal

himself with others having a like purpose.

One of the most important points brought out by Secretary Seabrook was that *any industry lives by what it gives and not by what it gets*. He said that one of the greatest problems any association has is to get the trade to give of its enthusiasm and support. "Men must be brought to realize that association work is fundamental to the industry." Illustrating this point, Secretary Seabrook gave as an example of enthusiasm that shown by business men at their Rotary Club and Kiwanis Club meetings. He deplored the fact that the same enthusiasm was not shown at the association meetings, in view of the fact that it is business which supports all these other activities.

Several other points were emphasized by the secretary, among which was the failure of association members to use the research data which the National had made available for them. "The association can dig out the material and wrap it up in packages almost," he said, "but if the men will not call for the packages, the association is powerless to help them. The association makes possible a meeting place, but if the members will not avail themselves of the opportunity, there is nothing that can be done. Every man must work.

"The instability of the members is the weakest point in the association," said he. Dissolve the National Association today and one year from today nine-tenths of the local associations will have disbanded.

Mr. Seabrook cited one difficulty with sheet metal men which is sufficiently universal to be applicable to all and that is that they are too close to their jobs to see the bigger problems which are constantly confronting them. They must stand off occasionally and view the whole from a distance. Then they will see the industry in true perspective in its relation to other industries.

Eliminate the manufacture of light gauges, cut out direct quotations and direct sales, advertise the industry more, use the national slogan, were some of the recommendations Secretary Seabrook left with his audience before closing.

What is needed most of all is a plan, the imagination to expand it and an organization strong enough to carry it out. This is the age of concerted action and coöperation.

Edwin A. Scott spoke on the "Ethics of Buying and Selling" immediately after Secretary Seabrook had finished. In his address Mr. Scott brought out the fact that too much time is being lost in bargain hunting. He said that men should determine what they want and where they could get it, and then stick to the reliable source of supply. Whenever a bargain expedition was indulged in the buyer was sure to get stuck. Mr. Scott left

some very good pointers with his audience. He said that the sheet metal contractor was in a far different position from the hardware man. The sheet metal contractor deals in service, while the hardware man deals in commodities which the customer carries away with him. If the service is cheap, the customer goes elsewhere and the contractor loses. Mr. Scott asked his audience how far a grocer selling oranges would get if he sold poor stock, thinking that the sooner the customer got rid of them the sooner he would be back for more. He said the sheet metal contractor was just as dependent upon customers as is the grocer. And his object should be to so conduct himself that he could hold his customers. Mr. Scott's address was well received.

In the evening the attending delegates were given an opportunity to view the manufacture of copper, through the courtesy of the Baltimore Copper Smelting and Rolling Company. The motion picture was accompanied by a lecture given by W. G. Stanton. Just before the close of the afternoon session Mr. Stanton gave a short outline of the first discovery of copper and its uses by the ancient kings. He also enumerated the present day uses of the red metal, all of which proved very interesting.

Following the showing of the moving picture a dance was held in the roof garden of the Severin Hotel. Those who did not dance played cards on the same floor.

A few of those present at the dance and card party were Mr. and Mrs. Paul Jordan, Mr. and Mrs. Harry Beaman, Mr. and Mrs. Joseph Mattingly and their little daughter, who can do the Charleston faster than her dad; Mr. and Mrs. Norman O. Voorhees, Joseph C. Gardner, Herb Symonds, R. W. Blanchard, Mr. and Mrs. E. W. Norman, Mr. and Mrs. F. A. Wilkening, Mr. and Mrs. H. O. McElwain, Mr. and Mrs. Charles Roland, Mr. and Mrs. Leslie W. Beach, Mr. and Mrs. C. E. Tharp, and a host of others who either danced or played

cards. A very enjoyable evening was spent.

Wednesday Morning

Wednesday's session of the convention was held under the auspices of the Indiana Warm Air Heating and Ventilating Association. President Harry A. Beaman presided.

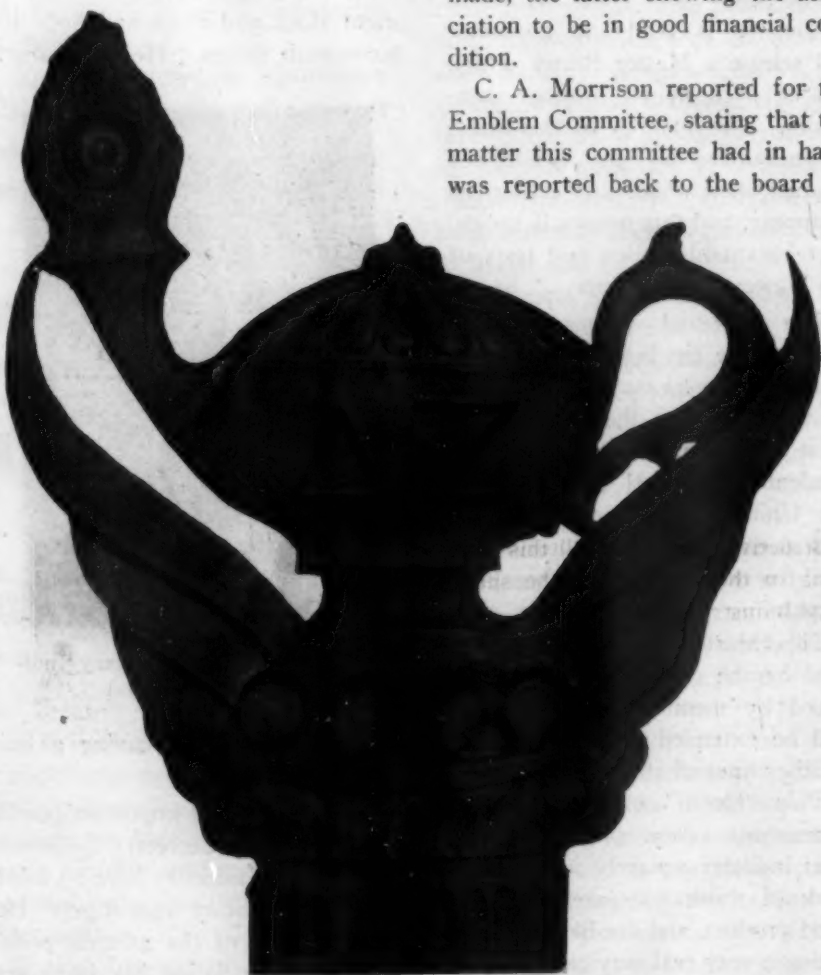
In reviewing the work of the association during the first year of its existence, President Beaman pointed with extreme pride to the work the association has accomplished. If

pride. It is a year replete with accomplishment.

President Beaman, in closing, urged the members to continue the good work which the association is doing in raising the standard of warm air furnace installation throughout Indiana. He said that the officers were always open to suggestions.

The respective reports of the secretary, Frank E. Anderson, and treasurer, J. M. Oliphant, were made, the latter showing the association to be in good financial condition.

C. A. Morrison reported for the Emblem Committee, stating that the matter this committee had in hand was reported back to the board of



**Delta Zeta Sorority Emblem Hammered from Sheet Copper by Mechanic of
Bloomington Radiator and Sheet Metal Works, Bloomington, Indiana,
Exhibited at Indiana Convention This Week. Thirty-four
Hours Were Consumed on the Job**

the association had done nothing more than place the Standard Furnace Code into the Indianapolis building code it would have fully justified its formation. And all due credit must go to the men whose foresight, courage and initiative brought it into being. The officers and members can afford to look back over the year's work with

directors for more careful consideration before any definite action is taken on it.

The action of the committee on the formation of a Code of Ethics for the association, of which R. W. Blanchard is chairman, was reported by Guy Voorhees. Mr. Voorhees stated that the matter of forming a Code of Ethics was being held

in abeyance for another year in order to permit the committee to study thoroughly the problems confronting the association and to formulate such a Code as would be just to all.

Harry S. Rogers of the Sheet Steel Trade Extension Committee again addressed the convention. He stated the prime objects for the formation of the committee to be three in number: 1. To regain the markets for sheet steel which have been lost to the mills and the industry because of certain vicious practices. 2. To create new markets for the products which are now being and will later be fashioned from sheet steel. 3. To create new products and uses for sheet steel and in that way increase the annual tonnage being used.

Mr. Rogers stressed very strongly the axiom that there is no substitute for personal contact. He touched upon the fact that the committee is seeking first, last and always to relieve complaints; it is seeking constructive ideas to increase its service, while at the same time it is also seeking and offering constructive criticism. All this it is doing in the interests of the sheet metal industry.

Mr. Rogers also brought out the fact that the committee has now catalogued some 85,000 to 95,000 names of users of sheet metal.

The committee's work in revising city building codes was also reviewed.

He had something very interesting to say about the Master Brand Sheets which are now shortly to appear upon the market.

A description of what these sheets are follows:

Another point upon which Mr. Rogers spoke was that the committee had found that cities often copy building codes from other cities. This practice often brings bad results and works hardship on the contractors in the town which has copied the code of a city in which certain factories control the councils. He cited an instance in Chicago where it was found that the ordinance prohibited the use of sheet steel ceilings unless two coats

of plaster were first placed on the ceiling and over which the sheet steel ceiling was to be placed.

Mr. Rogers closed by reiterating what he said the previous day about the Building Trade Extension Bureau, headed by George L. Bennett and its willingness to help sheet metal contractors out of these situations by assisting them in getting the city councils to see the light of day. Mr. Bennett is located in the Oliver Building, Pittsburgh, and will gladly respond to any call for assistance.

Charles A. Tharp mentioned the success he had had in forming an



Harry A. Beaman, President Indiana Warm Air Heating

association of warm air heating men in Fort Wayne. The men at Fort Wayne, he said, had been brought together by an emergency which has resulted in an organization having 24 members and a promise of 10 more. The emergency was the revision of the city building code and the insertion therein of clauses and phrases which would have practically legislated the warm air heating industry out of existence in Fort Wayne. Fortunately the matter was caught in time and now these men are assured of a code which embodies the Standard Furnace Code in substance.

For the benefit of the men in South Bend, Mr. Tharp stated that

a revision of the city building code was in contemplation there in the near future and it would be well for these men to be on the job.

Guy Voorhees gave a very instructive address on "Cold Air Shoes." The address was based upon several tests that had been made with several types of cold air shoes. Some idea of the nature of these tests can be gained from the revelation that a round end shoe with a collar at the top was found to have a better efficiency than a transition shoe. At higher temperatures it was found, on the other hand, that the transition shoe showed a little higher efficiency, but this was only true where the temperatures were maintained at a much higher point than is done in ordinary practice.

These tests, however, are not as yet conclusive and must, therefore, be further prolonged before their revelations are disseminated. Mr. Voorhees hopes to have something definite on this shortly.

Wednesday Afternoon

Harry A. Fenton, a well known attorney-at-law of Indianapolis, addressed the delegation assembled in the afternoon. What Mr. Fenton said in regard to lien laws and employes' compensation insurance applies only to the laws on these subjects in the state of Indiana. The message he did bring, however, was that the sheet metal contractor should familiarize himself with the laws of his state to the extent that he will know what he must do to gain the protection of the law in every instance, in order to insure his receiving proper payment for services rendered.

The sheet metal contractor should thoroughly understand his status in relation to the general contractor. He should understand his status as regards the owner of a building upon which he is called to perform services and to supply materials.

It is just as important to know how to avail yourself of the protection of the law in all cases as it is to get contracts for the performance of service or the supplying of

materials. If you are in doubt about your status or your powers before the law, employ the services of a good attorney before signing a contract. By so doing you will save yourself much embarrassment and actual loss. There is nothing wrong with the laws, said Mr. Fenton. They are all right, but you must know how to employ them to gain their protection.

A rising vote of thanks was given Mr. Fenton.

A letter was received from E. B. Langenberg, President of the National Warm Air Heating and Ventilating Association, stating that due to illness he was unable to be present in person, although he was in heart and spirit.

The address of Mr. Langenberg was read by Charles E. Tharp. The address will be found on another page of this issue.

A committee consisting of H. S. Griffen, W. M. Strassner and A. W. Dudley was appointed to draft a resolution of thanks to Mr. Langenberg.

Secretary Frank E. Anderson gave a very instructive talk on how to figure a warm air furnace job for a five-room house according to the Standard Furnace Code and the Indianapolis building code.

The point aimed at by Secretary Anderson was to give an object lesson in getting a fair price for a warm air heating system. In the course of the lecture Mr. Anderson showed how the price of the completed job could be arrived at by the ratio and proportion method. He showed how the ratio of the cost of the plumbing and the lighting equipment to the entire investment was arrived at and then applied the same method to the finding of the cost to the consumer of a warm air heating plant.

Mr. Anderson evolved an idea here which if properly worked out and carried through would present an entirely new sales angle for the dealer.

Election of Officers of Indiana Warm Air Heating Association

The election of the officers for the ensuing year of the Indiana

Warm Air Heating and Ventilating Association resulted as follows:

President, Harry A. Beaman, Indianapolis, reelected.

Vice-president, Guy Voorhees, Indianapolis.

Secretary, Frank E. Anderson, Terre Haute, reelected.

Treasurer, J. M. Oliphant, Indianapolis, reelected.

The directors appointed were as follows: For two years, William M. Strassner, Frank Anderson, and O. Voorhees, Indianapolis. For one year, C. A. Morrison, Bedford.

Banquet and Entertainment

E. W. Norman is an entertainer of the first order. Even George M. Cohen and Flo Ziegfeld could learn a lot from him. Not only is he a super-showman, but a magician of some skill. Out of a nonchalant audience of diners he produced an orchestra that would be a credit to any Broadway musical review.

The entertainment he put on for the three Indiana associations in the Hotel Severin Roof Garden Wednesday night was beyond all question the best that has ever been staged for any state association of sheet metal contractors in the country—this without qualification or reservation.

Jazz music by a nine-piece female orchestra, which out-ashed Paul Ash; Charleston dancers—masculine and feminine; popular song birds par excellence, comedy without errors, cellist selections accompanied by the piano—all rendered in the most charming and enjoyable fashion, were some of the high lights of the entertainment, all this taking place while a most delectable dinner was being served and all worked out by the versatile and resourceful brain of Mr. Norman. It was Mr. Norman's leave taking from Indianapolis and he certainly did himself more than proud.

The Paramount Parisian Orchestra was responsible for the music and they certainly made it hot.

The entertainment opened with an argument between Mr. Norman and the director of a certain orchestra which was to have been on

deck but apparently got its dates mixed and failed to show up. Ever resourceful and dauntless, Mr. Norman scoured through the audience and found first a drummer, then a pianist, then a violinist, two lovely creatures who were handy with the mandolin picks, and a saxophonist that just simply made the old sax moan for more. Added to these were a pair of embryo Gallie Curcys and presto! no need for further argument.

Selection after selection was played as the diners ate, smoked and gossipped. Interspersed among the vocal and orchestra selections of popular songs were both Charleston and toe dancing and other vaudevilian stunts of a very high class order.

Among the most interesting features of the program was the rendition of two cello selections—"Orientale" by Cui, and "Serenade" Badine, by Gabriel-Marie—played by Miss Helen Roland, accompanied on the piano by Miss Lynette Rynerson. Miss Roland is the daughter of our own Mr. and Mrs. Charles Roland of Roland & Beach, Richmond. Miss Roland is a Senior at DePaw University, Greencastle, Indiana. She is a member of Alpha Gamma Delta and D. O. sororities. Her rendition of the two pieces mentioned above added greatly to an exceedingly entertaining program.

During the course of the evening the "three Kentucky Colonels," O. E. Hutchison, R. E. Merrick and Lewis Heck, were introduced. These gentlemen came all the way from Louisville to invite the Indiana men to the national convention at Louisville in May.

The following is the famous Kentucky toast which President Mattingly gave to the Kentuckians at the banquet:

"Here's to old Kentucky, where you never have the blues,
Where the Captain kills the Colonel
and the Colonel kills the booze.
Blood it flows like water and bullets
fly like hail,
Every pistol has a pocket and every
coat has a tail.

You start out in the morning to give your health a chance, And they bring you home at midnight with buckshot in your pants."

In view of the fact that Mr. and Mrs. Norman were leaving Indianapolis for Cleveland, where they will make their new home, it was only fitting and proper that the Indiana boys do something to show their appreciation for the time and effort Mr. Norman has given so freely to the association work, particularly the entertainment features. He was, therefore, presented with a beautiful walrus traveling bag.

There were over 125 ladies and gentlemen present at the banquet, each and every one of whom enthusiastically avowed that the entertainment provided by Mr. Norman was second to none the association has ever had. All were sincere in their thanks to Mr. Norman and all wished him success in his new venture.

Thursday Morning.

The session of Thursday morning was again under the direction of the Indiana Sheet Metal Contractors' Association, with President Mattingly in the chair.

The initial subject discussed referred to the subject of consolidation of the two organizations. Joseph Gardner reported that a meeting of the Boards of Directors of these two organizations had been held and a decision reached allowing the matter to rest for the time being.

A resolution of thanks was passed offering thanks to the program committee, the hotel, Mr. Rogers of the Sheet Steel Trade Extension Committee and Mr. Stanton of the Baltimore Rolling Mill Company.

Election of Officers.

President, Charles K. Strassner, Anderson.

First Vice President, Elmer Livezey, Newcastle.

Second Vice President, Charles Gatz, Gary.

Treasurer, Charles E. Tharp, Fort Wayne.

Secretary, Leslie W. Beach, Richmond.

The directors elected, as read by

balloting committee consisting of O. Voorhees and Charles Roland, were as follows: W. A. Brown and A. W. Dudley.

Secretary Sealbrook spoke of a comprehensive membership plan which the National is fostering and which will be continuous.

A communication was read from the West Baden Springs Hotel Company inviting the convention of 1927 to that place. It was voted to thank the hotel for the invitation and the secretary was instructed to inform the hotel company that the communication would receive due consideration by the Board of Directors.

The question box provoked some very interesting questions which

were debated to the enlightenment of all those present.

A discussion of some of the points brought out will be found in near issues of AMERICAN ARTISAN.

A well arranged program for the entertainment of the ladies present—and there were a lot of them—was well carried out. Wednesday afternoon the ladies were taken to Keith's Vaudeville theatre where an interesting program was enjoyed. The visiting ladies were the guests of the Indianapolis ladies. Tuesday evening there was, of course, the dance and card party which could not have been a success without the ladies.

Wednesday evening the ladies were of course at the banquet.

Fur-Mets Decide to Offer Prizes for Best Hand Made Sheet Metal Articles

Elevate O. Voorhees to Position of President in Appreciation of His Long Service

THE Indiana Fur-Mets met in annual session Thursday morning, February 18, in the lobby of the Roof Garden, Hotel Severin. President Philip Geitz presided.



O. Voorhees,
President Fur-Mets

Secretary O. Voorhees reported a total paid up membership of seventy-two.

The resignation of Mr. Voorhees was read and accepted. A vote of thanks was tendered Mr. Voorhees for his efficient handling of the office of secretary.

The resignation of E. W. Norman from the Board of Directors was also read. The reason for resigning from the Board of Directors by Mr. Norman was explained by him as due to the fact that he will no longer be in Indianapolis. His resignation was accepted and a vote of thanks tendered him for all the work he has done for the good of the association. Mr. Norman retains his membership, however.

Treasurer John C. Henley reported that 126 tickets had been sold for the banquet and entertainment. Mr. Voorhees requested that Mr. Henley report receipt of all money taken in by the secretary, as the latter explained that was already under suspicion (laughter).

George Thomas of the Standard Sheet Metal Works, Indianapolis, offered a suggestion that the Fur-Mets offer three prizes for the best hand made sheet metal objects by sheet metal mechanics. This plan would do a great deal to stimulate interest in the sheet metal contractors' association and would increase membership. It was thought that since the Fur-Mets were organized

for the purpose of stimulating membership in the state association, this prize offering plan would go a long way toward accomplishing the object sought.

The money for the prizes would be paid by the Fur-Mets treasury. The idea was well thought of by the membership and as committee consisting of Mr. Thomas and Frank Anderson was appointed to



Harry C. Jones
Secretary Fur-Mets

lay the matter before the convention of the state association.

A resolution of well wishes was voted to Ben Booth of Tanner & Company who has retired.

A motion, proposed by Mr. Norman and adopted by unanimous vote, was made to send a letter of thanks to both Miss Helen Roland, cellist, and Miss Lynette Rynerson, pianist, for the splendid way in which they contributed to make the entertainment at the banquet a success.

Election of Officers.

The Nominating Committee, consisting of E. W. Norman, R. T. Wilcox and Charles Hall, submitted the following nominations for officers for the ensuing year:

President, O. Voorhees.

First Vice President, F. A. Winkening.

Second Vice President, J. M. Oliphant.

Third Vice President, Harry Beaman.

Fourth Vice President, Karl Roth.

Secretary, Harry C. Jones.

Treasurer, John C. Henly.

The following directors were named:

Philip Geitz, Paul R. Jordan, Harry W. Neal, George Thomas.

The membership committee consists of Frank Beeth, Otto Herman, Travers Daniel, Jr., and H. O. McElvaine.

Milwaukee Sheet Metal Contractors Hold Regular Monthly Meeting

The Master Sheet Metal Contractors' Association of Milwaukee held their regular monthly meeting February 10th, with 14 members present.

The meeting was called to order by President T. E. Tonnsen, at 8:10 p. m.

Secretary Podolsky was instructed to mail all local architects a copy of sheet metal specifications as worked up by the committee.

The following motions were made and carried; that the resignation of F. Seeger be accepted; that the following bills be paid: Hotel Blatz luncheon, \$23; Joseph Holnitz, refreshments, \$11.50, also that state tax be paid for each member in good standing, and that delegate for the Milwaukee Employers' Council to succeed John Bogenberger be postponed until the next meeting. It was unanimously decided to continue the delinquent list.

The secretary was instructed to attend the Milwaukee Business Secretaries' Forum and give a report at the next meeting.

Regarding the conference of State and Local Secretaries, this was held over until the next meeting.

The secretary was instructed to write Bergstrom Stove Company to the effect that their explanation of sales direct has been accepted and that the Association is glad they do not advocate selling direct.

The meeting adjourned at 10:00 p. m. following a general discussion.

Send us the news about the activities of your local sheet metal contractors' association.

New Jersey Sheet Metal Contractors Will Meet March 23 and 24

The Sheet Metal Contractors' Association of New Jersey will hold its annual convention at Newark, New Jersey, in the Robert Treat Hotel on March 23 and 24, 1926.

The following letter is being sent out to members by Secretary Schrack, urging them to attend the convention:

"Aren't there a lot of things about the sheet metal industry you don't like? Wouldn't you be glad to have, yourself, the chance to correct these abuses?"

"The annual convention of your trade association affords you an opportunity not only to help correct trade abuses but to promote the welfare of your business also.

"A splendid program, practical, helpful, constructive, covering all branches of the sheet metal business, will be presented.

"You cannot afford to miss this convention. Reserve the date; arrange to attend. More details later.

"Very truly yours,

"W. G. SCHRACK, *Secretary.*"

New Series Mailing Circular Issued by American Rolling Mill Company

The American Rolling Mill Company, Middletown, Ohio, has prepared a new series of three circulars suitable for mailing purposes—about 600,000 copies of each.

These circulars are being offered to sheet metal shops for use in promoting the increased sale of sheet metal products. They can be attached to statements or passed out to shop callers. Each contractor may have as many as he cares to use with his shop name printed upon them, entirely without cost to himself.

Requests for consignments of this new issue should be directed to R. A. Dadisman, Publicity Department, American Rolling Mill Company.

Iowa Sheet Metal Men to Hold Short Course at Ames in March

University Officials and Prominent Sheet Metal Men to Make Meeting Success

By J. F. JOHNSON

LETTERS have already been sent out calling attention to a 3-day course to be offered to Iowa sheet metal men at the state college at Ames, Iowa. Invitations have already gone out to this effect. In connection with these invitations it should be noted that the wrong dates were given. The correct dates are March 22, 23 and 24. The college officials, in coöperation with the Iowa Sheet Metal Contractors' Association, will be in charge of the meeting.

The sessions will take in general sheet metal work, planning, estimating, erecting and business management of a sheet metal shop.

The college men will be on hand to discourse on the technical matters and in addition there will be at least four speakers of national reputation.

It is the aim of the association to make the Iowa State College at Ames the regular meeting place.

It is hoped that the largest attendance on record will be present. The newspapers are giving the movement generous support.

The whole idea back of this big meeting is to bring the sheet metal industry up to its rightful place in the industrial work. The program is not complete at present, but here are things that should encourage the attendance of every sheet metal and traveling man.

The banquet will be under the supervision of the College Domestic Science Department. Ames, through its own radio station, will broadcast the speeches and also the college music at the banquet.

Ames and some other college will put on a basketball game. Also the gathering will be treated to some college wrestling matches.

Stickers and notes calling attention to this meeting are to be used

by firms writing to the trade and full support of the Travelers' Auxiliary is assured.

President Walter Grissell, of the Iowa Sheet Metal Contractors' Association, was present at the hardware convention held in Des Moines, Iowa, this week; and a very successful unofficial meeting of the Travelers' Auxiliary was held Wednesday morning, February 10, at the Des Moines Coliseum for the purpose of discussing ways and means to make the meeting in March the biggest ever known in Iowa sheet metal history.

A good number of auxiliary members were present and most of the officers. All expressed much enthusiasm over the coming event.

All Iowa sheet metal men and auxiliary members are urged to reserve these dates and attend these instructive meetings.

New ideas, short cuts and many efficient practices not now known in the average shop are promised.

Freight Car Loadings Show Big Increase for January

Loading of revenue freight for the week ending January 30 totaled 925,263 cars, according to reports filed by the carriers with the car service division of the American Railway Association.

This was an increase of 27,895 cars over the corresponding week in 1925 but a decrease of 4,360 cars under the corresponding week in 1924.

The total for the week of January 30 was, however, an increase of 3,529 cars over the preceding week, increases being reported in the total loading of all commodities except grain and grain products, coke, ore and miscellaneous freight which showed slight decreases.

A comparison by weeks follows:

	1926.	1925.	1924.
January 2....	741,239	767,098	706,292
January 9....	907,119	934,170	871,023
January 16....	936,655	934,022	894,851
January 23....	921,734	924,291	891,481
January 30....	925,263	897,368	929,623

Wants Size of Dust Collector Suitable for Cotton Gin

TO AMERICAN ARTISAN:

Will you please help me out on the following problem:

I want to know the size of Cyclone dust collector suitable for a cotton gin, using a 45-inch high speed fan with 17-inch intake and 15 by 17-inch discharge, dust collector to set 37 feet from fan.

Any information you may offer will be appreciated.

Yours very truly,

DAN L. ASBURY.

Walter A. Sargent Goes in Sheet Metal Business for Himself

Walter A. Sargent has resigned his position with the Pekin Hardware Company, Pekin, Illinois, which was effective January 1, 1926, and has opened his own sheet metal shop at Pekin under his name.

In addition to sheet metal work, Mr. Sargent does heating and ventilating work.

AMERICAN ARTISAN extends its best wishes for Mr. Sargent's success in his new venture.

Dayton, Texas, Subscriber Says, "Can't Get Along Without It"

Here's what Jack Baird, Dayton, Texas, thinks of AMERICAN ARTISAN:

TO AMERICAN ARTISAN:

The sun shines 365 days a year some years down in far off Texas, but not in 1925. Never-the-less business was good just the same.

I cannot get along without AMERICAN ARTISAN, so here is a check for my subscription renewal. I could not spend the money to better advantage anywhere.

Yours truly,

JACK BAIRD.

Sketch Shows Layout of Pattern for Horizontal Prong Chimney Cap

Must Build Collar to Meet the Intersections of the Tee Connection

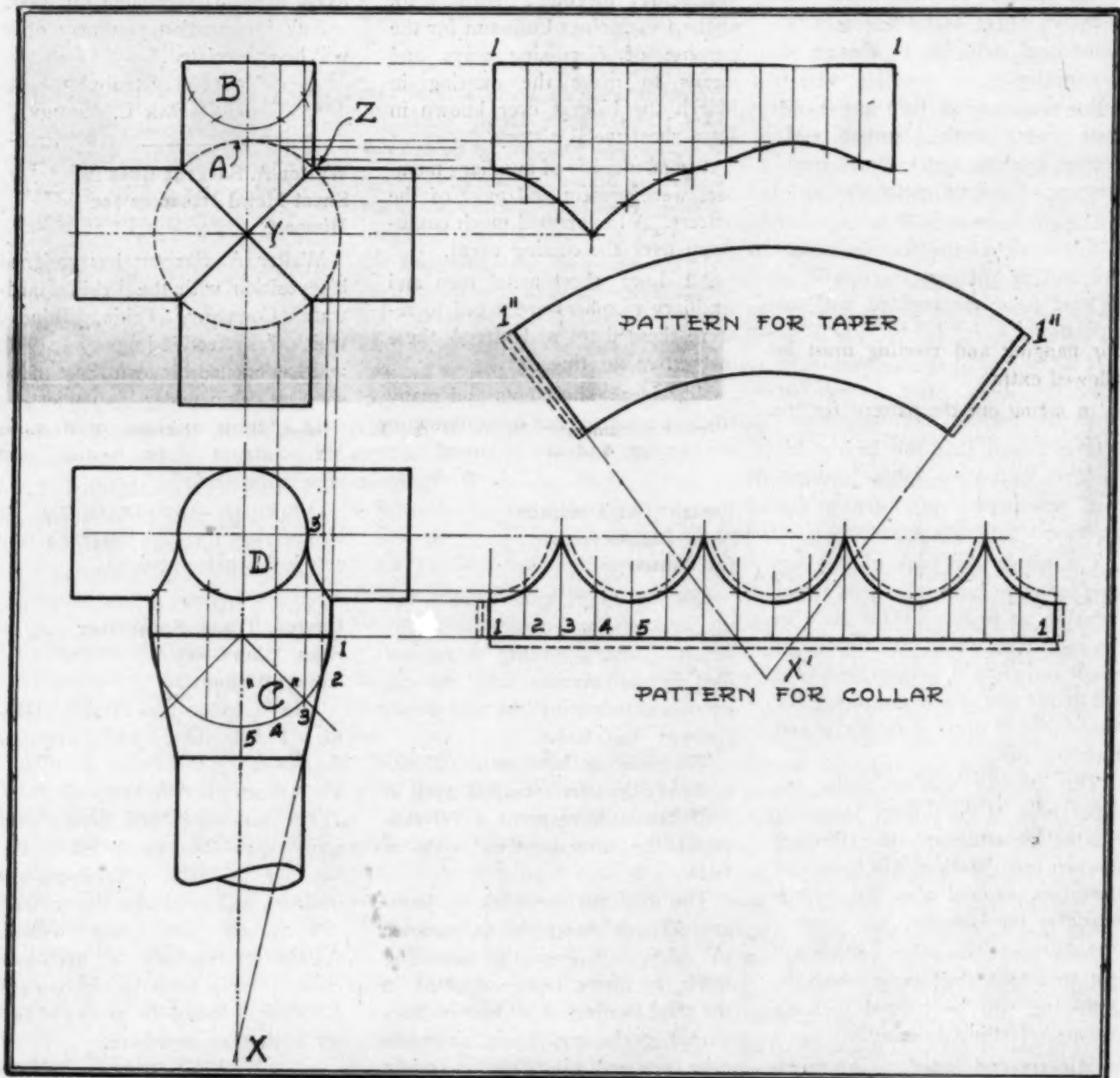
By O. W. KOTHE, Principal, St. Louis Technical Institute, St. Louis, Missouri.

IT IS not often a person meets with a chimney cap as shown in the enclosed drawing, which is never more than right angle tees mitering together and which set on a collar of larger diameter. The idea is this, when used on buildings where down-draft is met with, the down-draft will not cut off all the

air flow, leaving at least one and possibly two for the exit of the smoke. In a problem of this kind it is well to build a collar such as will meet the intersections of the tee connection such as Y-Z of plan. This enables drawing the section A.

Next draw the axis line both horizontal and vertical for elevation and

plan. Describe section B and divide in any number of equal spaces. From each of these points bring lines down to the miter line Y-Z. This tee pattern can be laid out direct from this view by picking the girth from plan section B and setting it off at right angles as 1-1. Then from each point in the miter



Patterns for Horizontal Prong Chimney Cap

line Y-Z bring over horizontal points to cut off these lines in stretchout as it effects the top miter. Then where these intersections occur on the section A carry over these points also into pattern and this gives the intersections where the horizontal tee will fit on the larger collar.

In developing the miter for the collar we must treat the elevation by drawing section "C." Next draw the end view D. Now this section C must be divided so the point 3' of elevation will rest in circle, which should be on a 45-degree line. Subdivide the remaining spaces and then erect lines to the section D. By bringing over horizontal points we thereby develop the miter as it fits around the horizontal tee. In setting out the pattern we pick the girth from section C and set it as 1-1 in pattern for collar. Erect stretchout lines and from each point in the section D bring over horizontal points to cross those lines in stretchout of similar number, which gives the intersection for tracing the several miter cuts shown. Edges for flanging and riveting must be allowed extra.

In laying out the pattern for the taper which connects with the collar and the stem the same treatment is followed as for any taper joint. The side line is extended to an apex which gives the radius X-1 for describing the pattern, using X' as center. When the girth spaces from C is stepped off on the larger arc as 1"-1" we have the pattern for taper and edges can be allowed for assembling.

Decide on Dates for Illinois Sheet Metal Convention

On February 15th the officers of the Illinois Sheet Metal Contractors' Association with the officers of the Travelers' Auxiliary met at the Hotel Peru, Peru, Illinois, for the purpose of setting the dates for their annual convention and arranging a tentative program.

The dates are April 7th and 8th and the place Hotel Jefferson, Peoria, Illinois.

William P. Laffin, president of the Auxiliary, appointed the following entertainment committee: L. A. Denoyer, chairman, O. T. Ingledew and H. R. Harrison.

The call for the Peru meeting was well answered, as is evidenced by the accompanying photograph.

Both the business and entertainment features of the convention promise to be the best in the history of the organization.

The meeting was very successful, many details being disposed of in short order.

veston; Second Vice President, E. J. Railton, Dallas. The secretary-treasurer's address is 2422 Alamo Street, Dallas.

Arex Company, Chicago, Has New and Interesting Ventilator Data Book

The Arex Company, 1881 Conway Building, Chicago, makers of Arex-Austor and the Economy ventilators, have now on hand some new and interesting data on the latest thing in ventilation.

Sheet metal men with difficult ven-



Wm. A. Schmoeger, W. B. Hurst, R. J. Jobst, H. R. Harrison, J. B. Sauer, L. A. Denoyer, W. P. Laffin, C. N. Lewis, O. T. Ingledew, C. H. Bishop, George Harms and F. I. Eynatten

After the afternoon's work the men were guests of the Peru, Illinois, Local, at a splendid dinner served in the Peru Hotel.

Further details of the convention program will be given in the near future.

Texas Sheet Metal Contractors to Hold Annual Meeting

at Dallas April 22 and 23

The Texas Sheet Metal Contractors' Association will hold its annual meeting at Dallas, April 22 and 23, according to Secretary-Treasurer H. Stanyer. An interesting program is being arranged.

The other officers of the company are as follows: President, E. O. Woods, Fort Worth; First Vice President, George P. Werner, Gal-

tilation problems on their hands will do well to avail themselves of this opportunity to set themselves right. A card mailed to the above address will bring the data to your desk.

Showing Cleveland Building Prospects at Business Men's Industrial Show

Who says it doesn't pay to advertise at fairs and business men's shows?

Meet Mr. Pease on the left and Mr. Werner of Cleveland on the right. This is not a prize fight introduction, but introducing two men who believe in advertising to get business and then doing a good job to hold it.

Werner-Pease Sheet Metal & Manufacturing Company took this booth at the West Side Cleveland

Business Men's Industrial Exhibit, held there recently and advertised their sheet metal work and line of furnaces. Both of these gentlemen were on the job each night, giving out literature to interested parties and discussing with some their particular problems. Several good jobs and a number of prospects were secured.

"However, we do not consider the actual jobs secured, the greatest value gotten out of our exhibit," said Mr. Pease. "The greatest good which we attribute to our exhibit is the getting across to West Side building owners and industrial and commercial concerns the fact that we are in their midst ready and equipped to handle any type of job, from the simplest to the most difficult."

Local affairs and industrial exhibits offer excellent opportunities for sheet metal contractors to advertise their business.

What Is Salesmen's Disease Called Insideetus

Some salesmen have what I call "insideetus," a disease contracted from polishing the leather seat of a swivel chair.

These swivel chair salesmen have shining surfaces that are usually covered by the modern-cut coat.

Show me the East end of a salesman going West, and I will tell you how much outside ambition he has.

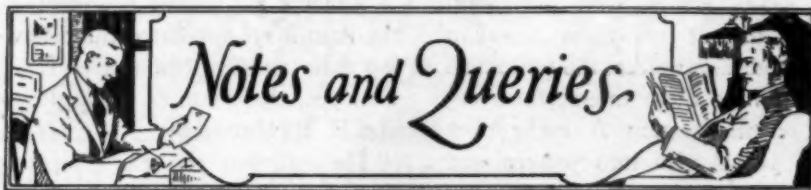
Spending one or two hours in the morning getting ready to go out gets a salesman out after the getting is not so good.

Scheming and dreaming is best done in the afternoon or evening.

I have the secret of most success in selling and, like the spendthrift, want to put it in circulation.

Result-getting salesmen use the swivel chair in the afternoon, or along toward the end of a successful day at selling.

Those who are fond of hearing secrets are the ones who do not mean to keep them, so please pass this one along.



Lead Headed Clinch Nails.

From P. H. Cotton Metal Works, 4628 Bienville Avenue, New Orleans, Louisiana.

Will you kindly furnish me with the name of a company in Chicago that makes lead headed clinch nails for fastening corrugated sheet iron to steel frames.

Ans.—Alexander Filshie, 5801 South State Street.

IXXXX Bright Tin Plate.

From Neosho Plumbing, Heating and Manufacturing Company, Neosho, Missouri.

Please let us know where we may obtain good IXXXX bright tin plate in large sheets, 30 by 96 or larger.

Ans.—N. and G. Taylor Company, 208 South La Salle Street, Chicago; Merchant and Evans Company, 347 North Sheldon Street, Chicago, and J. M. and L. A. Osborn Company, Cleveland, Ohio.

Toncan Metal.

From Schoolcraft Sheet Metal Works, 199 North Second Street, Niles, Michigan.

Where can I buy Toncan iron? I do not know where to get it since the Berger Manufacturing Company went out of business.

Ans.—The Berger Manufacturing Company are still in business in Canton, Ohio, and you can get the Toncan metal from them.

Celluloid Novelties and Printing on Celluloid.

From Cecil C. Coon, 131 East Chestnut Street, Wauseon, Ohio.

Can you tell me who does printing on celluloid and also who makes celluloid novelties?

Ans. — Parisian Novelty Company, LaSalle and 22nd Streets; The Cellucraft Company, 358 West Madison Street; O. Felsenthal and Sons, 1407 Hudson Avenue, all of Chicago, Illinois.

Lantern Slides for Advertising Use.

From Robert Polansky and Son, Caldwell, Texas.

Please inform us who makes lantern slides for advertising purposes.

Ans.—American Slide Company, Columbus, Ohio; DeVry Corporation, 1111 Center Street, Chicago, Illinois; Des Moines Slide Company, Des Moines, Iowa; Kansas City Slide Company, New Central Building, Kansas City, Missouri; Advertising Slide Company, 800 Chestnut Street, St. Louis, Missouri.

"Success" Oil Cook Stove.

From J. H. Bedford, Bridgeport, Illinois.

I should like to know who makes the "Success" oil cook stove.

Ans. — Pittsburgh Lamp Brass and Glass Company, Pittsburgh, Pennsylvania.

Address of Reinhold No-Flux Aluminum Solder Company.

From a Subscriber.

Please furnish me with the address of the Reinhold No-Flux Aluminum Solder Company.

Ans.—Maplewood, New Jersey.

"Trident" Water Meter.

From Yorkville Plumbing and Heating Company, Yorkville, Ohio.

We should like to know who makes the "Trident" water meter.

Ans.—This meter is made by Neptune Meter Company, New York City.

Second Hand Sheet Metal Machinery.

From Auburn Furnace Company, West 7th Street, Auburn, Indiana.

Please furnish us with the names and addresses of firms who can supply us with second hand machinery including heavy rolls, punch and riveting machinery.

Ans. — Maplewood Machinery Company, 2638 Fullerton Avenue, and B. L. Saltzman, 524 West Van Buren Street; both of Chicago.

Address of Sievert Oil Burner Company

From F. R. Hart, Lyons, Nebraska.

Will you kindly give me the address of the Sievert Oil Burner Company?

Ans.—710 North Main street, Los Angeles, California.

The Editor's Page

Why Louisville Delegates Went to Indianapolis

"THAT'S Kentucky's way of sayin' good mornin'." Present at the Indiana Sheet Metal Contractors' convention at Indianapolis this week was a delegation of Louisville, Kentucky, contractors. The appearance of this delegation—which consisted of Louis E. Heck, President of the Louisville Local, Ed. Merrick, O. E. Hutchison, the three Kentucky Colonels, and R. A. Hencilman—in Indianapolis had a double significance. First these men were showing their willingness to learn what other men in their own business are doing; secondly, they came to extend a personal invitation to the Indiana men to attend the National convention to be held in Louisville the latter part of May. This was in reality the opening of an intensive campaign that the Louisville men are staging to get members down to Louisville in May. They are going at the job systematically.

The invitation which they extended in person at Indianapolis was not meant solely for the Indiana men. It was a general invitation broadcast through the medium of *AMERICAN ARTISAN* to sheet metal men in all sections of the country to attend the national convention. No one who saw these men standing before the folks at the banquet with Klieg lights on their faces while they sang "My Old Kentucky Home," could doubt the sincerity of the invitation they brought with them from Louisville. They put their whole heart into it as they always do.

These Louisville men and women are working hard to make the 1926 convention a success. The committees at Louisville are spending time, money and effort in order that when you step out of your Pullman at Louisville there will be a friendly smile to greet you, that you will be comfortably housed during your stay and that you will be suitably and enjoyably entertained. What more could you ask?

These Kentuckians fought hard against strenuous opposition for the privilege of entertaining you. They won that privilege in a hotly contested but fair fight. They are now working with all the zeal and enthusiasm they can muster to make you say you're glad you came. They want to show you Kentucky's way of "sayin' good-mornin'." They want to do more; they want to give you a taste of Kentucky hospitality. They want to prove to you that they have hearts.

Therefore would it be fair for you to give these men any less than the fullest extent of satisfaction of their desires? Could you be so unappreciative of the hosts par excellence as not to make preparation for a visit to Louisville? We think not. We think you are men with hearts and souls and a desire for friendship to the fullest extent. Therefore we know that the Louisville men will not be disappointed in the size of the delegation. On to Louisville in May, 1926.

Appreciating Need for Code of Ethics

WHAT are the ethics of selling direct? Rarely if ever do groups of sheet metal men get together without the subject of selling direct coming up for discussion. There are ever present the low rumbling—as of distant thunder—of some man or men who have a grievance or a bone to pick with some manufacturer about the latter's selling direct.

There are arguments in favor of both sides. The individual contractor has a perfectly just complaint when he finds the manufacturer entering territory designated as that contractor's—either expressed or implied—with direct sales. There is certainly no reason for jubilation from the sheet metal contractor in the knowledge that his prospective customers can purchase sheet metal products from the lumber yards in his own town at a lower price than the contractor himself can quote.

On the other hand the fault does not all lie with the manufacturer either. To him there is little consolation in the fact that a competitor took business away from him in a certain territory because the sheet metal contractors in that territory lacked the initiative to go out and get the business. The method of distribution through agencies—the local sheet metal contractor—is by far the most effective method where the machine functions properly—where the contractor is on the job and getting contracts for the manufacturer's products.

There is no more effective way to call attention to the need for a righteous code of ethics in the industry than to point the hardships wrought by unethical practices of any of the parties concerned.

Unethical practices are demoralizing to the industry in which they are enacted. They are hard to fight by the individual—regardless of his status, whether he be a manufacturer or a contractor.

Fortunately there is an avenue of escape for them. They can lay their difficulties before the board of directors of their state or national association at any time during the year. By so doing they can obtain the pressure of unified action. Such opportunities should not be neglected. They mean in the long run the actual survival of the industry. They should receive prompt attention.

Whenever you have something of this sort confront you, make an honest analysis of the entire situation. Be fair with yourself. Determine whether you or the other fellow is at fault. If you find yourself at fault, don't fail to correct your ways. If you find the other fellow at fault and he refuses to heed your plea, send the particulars to the Board of Directors of your state association. If you have no state body, give the national body a chance.

Random Notes and Sketches

By Sidney Arnold

"The essence of humor is sensibility; warm, tender fellow-feeling with all forms of existence."—Carlyle.

I was very sorry to learn of the death of E. W. Norman's father, who was buried last week. Mr. Norman, who for a long time has been responsible for the entertainment features that have made the Indiana sheet metal banquets so successful in the past, is moving to Cleveland from Indianapolis. His new connection makes it more convenient for him to locate at Cleveland, although he is very sorry to leave the host of friends he has made at Indianapolis.

One of the most beautiful things about life is the friendships we make while going through it. We stand on our dignity and meet the people with whom we come in contact on a basis of equality and they accept us for what we are. From these contacts often spring acquaintances which time ripens into friendship accompanied by the exchange of compliments and gifts.

I received from S. H. Allston, assistant advertising manager of the International Heater Company, Utica, New York, such a compliment in the form of a leather key container. The gift was indeed a very useful and appropriate one. The sentiment back of it was indeed appreciated.

In a communication from Arthur P. Lamneck, secretary-treasurer of the W. E. Lamneck Company, Columbus, Ohio, I learned that W. E. Lamneck underwent a successful operation for appendicitis last Saturday, February 13. Mr. Lamneck was operated upon at the Grant Hospital, Columbus, where he is now convalescing in good shape. Arthur P. and W. E. Lamneck and the company which bears the latter's name are all well known in the trade; therefore I am sure that the news that W. E. Lamneck has successfully undergone the operation

will be gladly received by his many friends.

* * *

R. W. Blanchard, the Chicago branch manager of Hart and Cooley Company, is leaving soon for the South. He will spend a few days at Hot Springs, Arkansas, on his way down. From there he will go to New Orleans and thence to Tampa, Florida. He will take his golf clubs with him. When he will be



Russell Conrad Faber

back Ralph does not know. About land speculation in Florida he was also non-committal. Whether Mrs. Blanchard will accompany him he did not know. He said she had "promised" to go.

Ralph, you know, is a granddaddy twice and he is very proud of that fact. The accompanying illustration is that of Russell Conrad Faber, one of Mr. Blanchard's grand-children. Well he might be proud of him.

* * *

John Bogenburger is responsible for this atrocity:

Having matters pretty much his

own way, it was not difficult for the head of a flourishing business to install his son just out of college as one of the directors of the concern.

"Big position for a youngster," suggested a friend.

"Pretty fair."

"Why don't you start him at the bottom?"

"Because I don't think he'd ever get any farther," was the candid reply.

* * *

The Blizzard—A Rag-time Rhapsody by a Snow-bound Salesman

Sleeping, the lily
Under her chilly
Blanket of snow,
Dreaming of sunny skies,
Blossoms and butterflies
Flown long ago,
Hears not the tall pine sough
Or the angry harpies chorus in the noisy
night and rough:
"Oh, blow, blow
Blow blizzard, blow
Out of the boreal desert of snow—
Blow, blow.
Blow from the Arctic land—
From the ice-cumbered strand
Of the Aurora,
Sweeping the wooded wold
Till thy cold robes enfold
Hill, dale and flora,
And thy weird terror-tones
Stir earth's remotest zones.
Blow till terrific waves tear the Pacific—
And frantic, gigantic Atlantic
Waves rumble and roll,
While the soul sinks in dole,
As in a boreal ocean of woe—blow,
blow!"

Fierce with elemental malice,
From the portal of his palace
At the Pole,
Sweeps the blizzard, blind in wrath,
Onward—on, without a path,
Without a goal,
Roaring, groaning, panting, purring,
Booming, groaning, whining, whirring—
Swift in flight,
Strewing cities helter-skelter out of
kelter
In his might.

Torn by ferocious gales,
Loud the wild forest wails,
Sobbing and shrieking,
While every bending tree
Writhes in dire agony,
Cracking and creaking.

Hark! the harpies cease to sing,
But melodic echoes ring
In the ear of Fancy—
In the rapt ear listening
Unto necromancy:
"Oh, the storm will pass tomorrow,
As will pass thy deepest sorrow,
Though the blizzard from the Pole
Rageth not with greater fury
Than the storm within thy soul.
Rise and banish all the rheumy,
Red-eyed, gloomy wraiths of care;
Then will vanish all thy fearful thoughts
and tearful,
When the cheerful morn is fair
And the eager buyers sign
Gladly on the dotted line."
—William Scott.

Here's One Solution to Bogue & Johnson Ventilating Problem

Propeller Fan to Be Run Thru First Floor and Roof

IN THE issue of AMERICAN ARTISAN for February 6, page 29, Bogue & Johnson Sheet Metal Works asked for a solution to the problem of ventilating the basement of a garage. The basement was used for purposes of storing cars and some repair work. Its size was 74 by 140 feet, with a cement floor covering the entire floor space. The basement was not heated and it had but one opening—an inclined driveway at the rear through which the cars were brought into the basement. There were no other vents or openings where the foul air and carbon monoxide could escape. Consequently the danger to employees entering the basement with cars was very great.

Samuel R. Lewis, Consulting En-

gineer, Chicago, offered the following remarks:

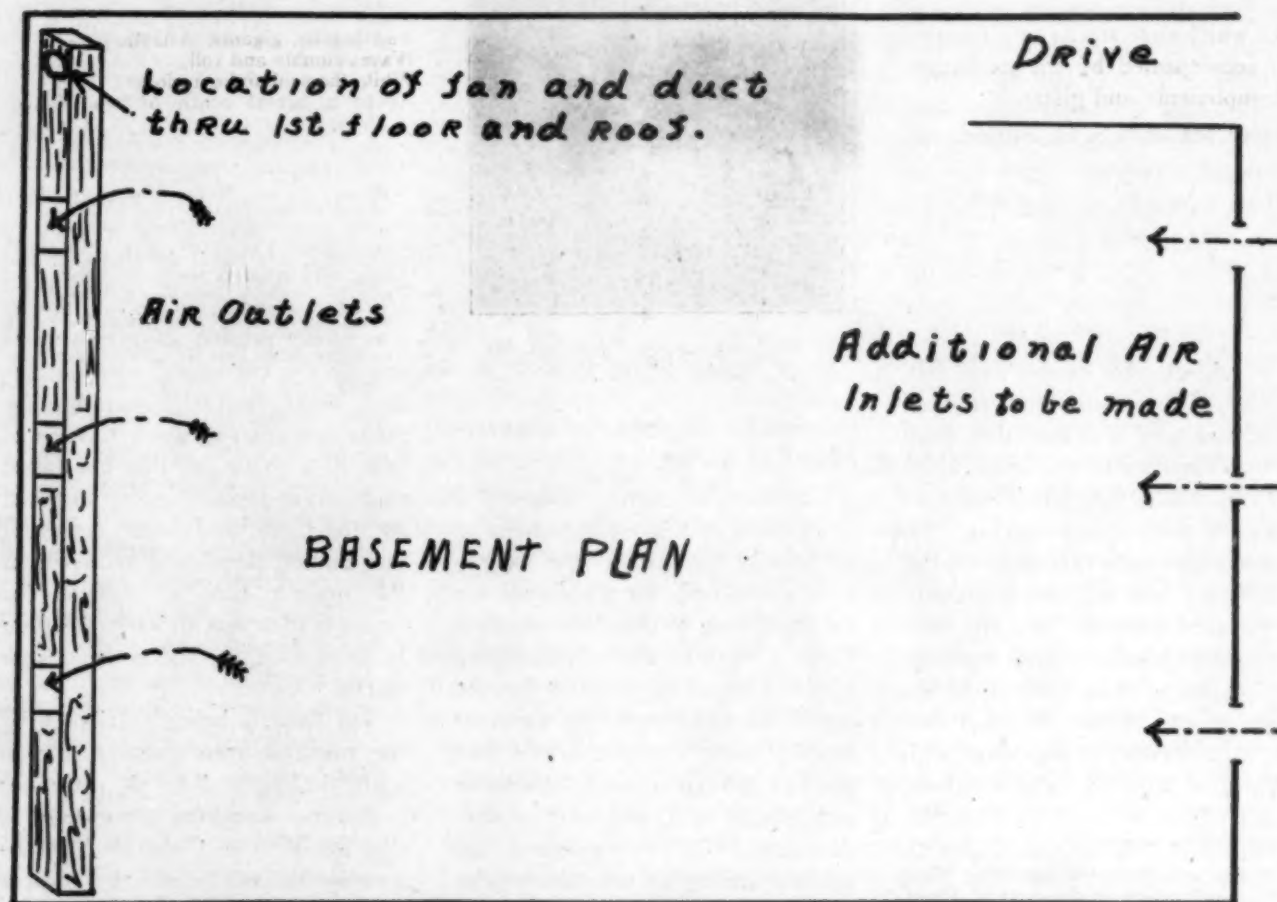
"The problem of ventilating this basement will not be solved satisfactorily without some mechanical means of moving the air. We have to deal with carbon monoxide, which is, as you know, a deadly poison, and due to the fact that the basement is unheated and is usually cooler than the surrounding spaces, this poison undoubtedly lies dormant down there until it reaches a high concentration.

"The most satisfactory scheme of correction would be to run a duct along the floor, at the end of the basement, most remote from the driveway, extending the whole 74 feet. I would make the duct about 24 inches square, with 12 by 12-inch

opening every 10 feet. At one end of it I would place a 30-inch diameter propeller fan, delivering the air through a flue of equal capacity running through the first story and well above the highest point of the roof.

"In order to move the large volume of air that must be moved, it is probable that *inlet* openings in addition to the one provided at the corner where the drive enters ought to be allowed for across the rear of the building. If such inlets are not provided, there may be a pocket of stagnant, dangerous air in the rear corner opposite the driveway.

"It is probable that the fan would not have to be operated continuously with such an effective arrangement of ducts."



Showing Method of Correcting Bogue & Johnson's Garage Basement Ventilation Problem.

Adoption of Code, Research Work and Publicity Three Points in Development of Industry

Three Indiana Associations Making Rapid Progress in Establishing Stability

By E. B. LANGENBERG, President, National Warm Air Heating and Ventilating Association

WARM Air Heating is gradually but surely coming into its own. With the impetus of organized effort back of the research work that has been done at the University of Illinois, together with plans for spreading this information broadcast through our Director of Public Relations, its growth and importance in the minds of the public is being the best heating system for the home will open fields that up to the present time have never been touched by the industry. The adoption of the Standard Code by the engineers, manufacturers, jobbers and dealers and the very fact that the Code is being used more and more each day is conclusive proof that the industry has reached a point wherein basic principles having been established, there is but the matter of spreading the information and applying these principles to every day practice.

When one attends these meetings where diversity of opinion is expressed and where it is possible to meet your competitor on an equal basis of a thorough understanding of a subject, one cannot help but wonder about those who stay at home and why it is that they pass up opportunities to exchange ideas and thus make themselves more fit to handle their own business. The men who generally do attend are the progressive ones who are constantly on the alert for new ideas and who are broad enough to drop personal antagonism to their competitor because of the amount of good that they can derive by discussion with other men who are in a relatively

same position they are in their own business.

Great movements are seldom accomplished by individuals, although an individual may conceive an idea and lead such a movement. But it requires the assistance of hundreds and thousands of men who concur in the idea presented and who are willing to submerge their personal



E. B. Langenberg, President National Warm Air

interests for the good that is accomplished by the mass.

The warm air heating industry is going through a mass movement at the present time and as the stake is such a big one, we should all for the time being become evolutionists. What I mean by this is to keep up with and accept the new and changed conditions which make the warm air heating plant so much better than the old hot air system, which we might refer to as orthodox or fundamental. Of course there are atheists among us who do not believe in progress and science, nor

do they recognize conscientious effort toward better things. Time and peoples generally attend to them in their own way and they are soon forgotten.

Then there is the anarchist who would tramp down all of the good work that has been accomplished up to the present and who would offer no new substitute except selfishness and an unbridled license to trim the public and line their pockets with money earned at the expense of another's suffering.

I mention these things simply to call to your attention that at all times you will be surrounded by destructive forces which seek to destroy you for their own gain and it is to guard against such as these that an organization of this kind established on good principles will win out in the long run and justify their existence in the minds of the public.

There are *three things* which at the present time stand out in my mind as being the most important factors in developing the present progressive movement of warm air heating in the home. They are:

1. The adoption of the Standard Code.
2. The research work at the University of Illinois.
3. Publicity.

As you all know, the Standard Code was started some 15 years ago and after a series of ups and downs was finally ratified about two years ago by the engineers', manufacturers' and dealers' organizations. After two years of use I have yet to hear of a single job that has failed to function properly when installed by this Code, and while at first it was rather skeptically received, at the present time a demand for copies is such that an issue of 50,000 is soon used up and a new issue started.

The Code is being distributed by the manufacturers continuously to their dealers and to all consumer prospects. In addition, the dealer is distributing the Code to his consumer prospects. At the present time the Director of Public Rela-

Address of E. B. Langenberg read before the convention of Indiana Sheet Metal Contractors at the Severin Hotel, Indianapolis, by Charles E. Tharp.

tions, L. Wayne Army, of our organization, has received over 500 pledge cards from dealers all over the United States who have pledged themselves to use the Standard Code on every installation. This is a remarkable showing, inasmuch as this pledge card was first mailed out some time in November of last year. There is no means of knowing accurately whether all of these pledges are being kept, but it does indicate that without question the fact of supreme importance to the industry is that these men who have signed these pledge cards are taking this matter seriously and are trying to do the right thing and it will be simply a matter of time until they will find it easy to follow the Code in every instance and they will be the ones who will reap the greatest harvest when the great public eventually realizes what this Code means to it.

Salesmen for all manufacturers are talking the Code wherever they go—on the train, in the pullman, to architects, to dealers, to consumers—and as I estimate there are approximately 3,000 salesmen traveling for furnace manufacturers, you can readily see that this information is being spread very rapidly. At the present time there are very few manufacturers who have refused to accept the Code and I think it is but a short matter of time until pressure from the consumer backed up by endorsement of the dealer before they will fall in line and make our effort unanimous.

Supplementing this distribution of the Code, legislation has been enacted and the Code adopted as a building ordinance in Omaha, Columbus, Indianapolis, and from reports I have received, will be adopted this year in New Orleans, Kansas City, Minneapolis, St. Louis and possibly other large centers where building codes are in operation.

It is my personal opinion that once the Standard Code is universally accepted and conscientiously used by every installer in the country that the growth in warm air heating will be practically 100 per

cent within the next five years of its general acceptance.

The second big factor is our research work and of this I cannot express enough praise, as it has shown up a number of weak points that have been strengthened and has brought forth some additional strong points which make us more sure of our ground in talking before the consumer. We have been fortunate indeed in securing the coöperation of the University of Illinois with their wonderful facilities for research work and I do not believe we could have picked out three better men than Professors A. C. Willard, V. S. Day and A. P. Kratz. The whole world is indebted to Professor Wahlen who invented the Wahlen gauge which we have used so extensively in our work and which is being adopted by other laboratories because of its accuracy in measuring air. Professor Wahlen was one of the first professors connected with our work during the early stages. As you all know, we built a research residence to supplement the work in the laboratory, and while printed reports of these tests that have been conducted in this house are not as yet available, these reports have been made to our membership and a wonderful mass of information is already available for use.

The last of the three major points that I have mentioned above is publicity. You will be surprised to know that already hundreds of sheet metal contractors have applied for the series of 12 ads which Mr. Army has offered to the dealers at cost and that these ads are now being run at the expense of the dealer in his own community. In addition to this, a number of groups in various centers are working on a coöperative advertising campaign similar to the one put on in St. Louis last year. This campaign covered sixteen quarter pages in two of the leading papers in St. Louis and eight manufacturers putting up approximately \$600 apiece were able to secure practically \$5,000 worth of advertising. A campaign similar to this can be worked out in almost

any community, and as for results, I can only say that the St. Louis group has authorized another campaign for 1926 for the same amount and with every indication of carrying the idea out for at least a period of five years. To get the best out of such a campaign it is necessary that each member have a good mailing list to which he could mail reprints of the newspaper copy and thus tie-in directly. This sort of advertising establishes a dealer's prestige in his own community and is well worth the money spent on it.

Speaking particularly to the dealers present, I should say that the greatest asset in your business, and incidentally the cheapest, is a mailing list by which you can reach either 100, 500 or 1,000 prospects at least monthly and let them know that you have some particular item to sell and so they will at least know that you have a store and that you are *You* and are ready to serve them on all metal work. As you no doubt know, there is considerable discussion going on concerning factory branches and there is but one way to meet this and that is by taking off your over-alls and stop working with your hands and start in with the best thought and effort that you can acquire and go after the business that is rightfully yours. If you will but analyze the successful men in your own home town you will find that they are thinkers and planners, and once they have their plan laid out, they stick to it until it is an accomplished fact. It takes perseverance, honesty of purpose and conscientious service to make good.

Knowing what we do about our business and realizing that it is only by our own individual efforts are we going to accomplish the plans we adopt here today, I can only suggest that when we get back home and look over the notes we have taken here at this meeting that we sit down and map out an aggressive campaign, and once that is settled, go to it with all our resource, energy and enthusiasm and earn the reward for which we are all striving.

Illinois Hardware Retailers in Convention Absorb Fund of Knowledge from Brilliant Speakers

Numerous "Brass Tacks" Talks and Group Discussions Features of Meeting

By J. F. JOHNSON

THE Twenty-ninth Annual Convention of the Illinois Retail Hardware Association, held February 16, 17 and 18, 1926, at Hotel Sherman, Chicago, Illinois, brought together one of the largest gatherings of retail hardware men on record.

Among the many speakers who appeared on the interesting three-day program were J. A. Van Nattan and H. R. Beatty. These men spoke of the hardware association activities and Mr. Beatty's talk was a direct message and report to the members of the work of the National Association.

"Take advantage of your membership in your organization," he said, "and make it work for you. What we are doing for the minority who follow us we can and want to do for all of you."

E. M. Healey, Past President of the National Association, was introduced and he spoke a few words of welcome.

An interesting moving picture film entitled "Turp and Tine" was shown the members Tuesday morning. This film illustrated and explained the processes of procuring the raw material and the manufacturing of turpentine.

A. Cunyningham spoke on "Effective Hardware Advertising." This was a short, peppy talk in which the fundamentals of advertising were effectively pointed out.

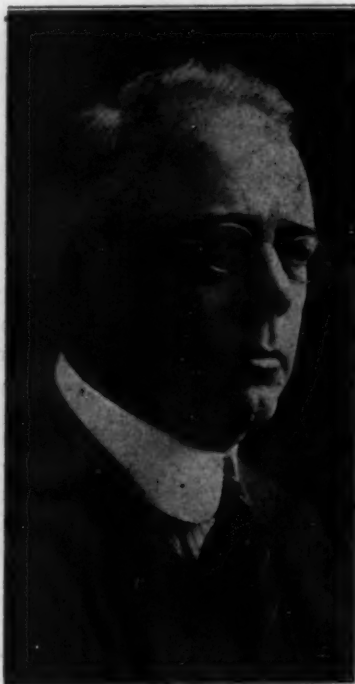
"Touch the human emotions when writing advertising," said Mr. Cunyningham. "Say what you'd really say to a friend of yours about an article you were proud of and you'll write good merchandising copy."

"Forget that you are writing advertising and picture in your mind

what the reader would like to know about your goods.

"Fear, curiosity and desire are the three big human emotions," Mr. Cunyningham said, "and in advertising great use of curiosity and desire should be used."

Rivers Peterson said the subject of his talk was "Let's Go" and that



Leon D. Nish
Secretary Illinois Hardware

it meant, "Let's go from where we are to where we want to be."

"Much gloom has been cast about tending to show that the retail hardware business was in slow motion," he said, but he cited facts and figures which proved that the retail hardware dealer was making an average of 9¼ per cent on his investment.

"In the list of retail failures during 1925," Mr. Peterson said, "less retail hardware dealers failed than retailers in any other lines."

Planning sales campaigns on special articles, advertising and methods of creating volume business were also subjects of Mr. Peterson's live-wire talk.

"Plan to get dollars instead of cents," he said, and he explained how it was just as easy to push \$1 articles to the front as it was the 10-cent articles.

Senator H. C. Kessinger of Aurora was an important speaker on the Wednesday morning program. He spoke on "The Statesmanship of Salesmanship." Senator Kessinger pointed out that the retail hardware man should interest himself with other merchants of his town to help put that town on the map. "Good hard roads are the excellent avenues of entrance to your town, but you must make it worth while for the people to come," he said.

He believes that the towns between 5,000 and 50,000 are the fortunate towns of today. "They will grow and prosper in greater measure in the coming years than the larger cities," he said, and he advised good parking space for automobiles and a good movie house as two things country villagers wanted in the town they come to for buying and visiting.

Hugo Prange, the new President of the Wisconsin Retail Hardware Association, was a visitor during the meeting and he was called on for introduction and he said a few words of greeting.

A group of members from towns under 10,000 population listened to a talk by Norman L. Williams on "Can the Hardware Dealer Handle Radio Profitably?" Mr. Williams has been very successful in selling radios in connection with his hard-

ware store and his information was very welcome.

"It is hard work but it pays a handsome profit," he said, and he believed that every hardware man should sell radios.

Mr. Williams said he finds it most successful to make his radio sales in the home. "Handle two or three good lines and sell on quality," he said.

A general discussion followed Mr. Williams' talk, and it was shown that of the members who sold radios, the majority found it the most profitable item they handled.

It was brought out that the radio was an especially good item for the hardware dealer inasmuch as January and February are poor hardware sales months and these months are the best for radio sales.

Another group made up of members from towns over 10,000 listened to a talk by G. Carl Haecker of Waukegan.

Mr. Haecker spoke in part as follows:

How to Best Use the Show

Window

It would be presumptuous of me to attempt to instruct you, the cream of the window trimming profession and successful retail merchants, on the subject which you gentlemen have dignified to an art and placed among the science and psychology of sales suggestion—but my modest experience and study justifies a few remarks which may be of common interest to us all.

In Webster we find the word "display" defined as exhibit or spreading out, and "advertise" is defined, to turn the attention of others to; or Window Display Advertising would mean, "Attempting to turn the attention of others to goods displayed in the window."

Looking back several years in the past we can see the hardware windows trimmed (no, not trimmed), but rather filled with odds and ends of hardware, axle grease, stock food, paint and seemingly anything that there was no room for in the store was literally dumped into the window, no thought of value, psy-

chology or even real good common sense used. There was no aim. Windows were considered as a necessary evil, a place left by the builder to let light in the store. What the windows could accomplish was never given a thought.

Retailers took the position that they would let their loving friends advertise for them, but it failed to accomplish the desired effect. Today we recognize and realize that the windows are the eyes of the store, the face of the store in reality, and by the windows the store is judged to a marked degree.

Dumping a large quantity of goods in the window without thought of arrangement means nothing. It would be better to leave it undressed, because a junky window puts your store in the junk class.

On the other hand a window well dressed, attractively arranged, gets recognition and builds confidence in the public's mind.

In the busy merchant's life it is a problem and no doubt the question is: "How then can I best use my show window?" This is a hard question to answer. It requires thought and analyzing of your own peculiar situation, location, trade and general public.

A Jew in the city was not getting his share of the business, his prices were right, his quality was first grade, his friends numerous, but he was not getting business. One day he complained to a salesman friend telling him of his trouble. Good location, good goods, good prices but no good business. His friend readily answered: "Isaac, the trouble is your window display. You can't expect business with those terrible looking windows. People don't know what you have for sale, they don't know your goods or your price. Now try this out: Trim your window up to the minute. For instance, Lincoln's birthday, you should get a picture of Lincoln, drape it with flags and put in words of praise for Lincoln and America. And the same way on Washington's birthday and so on through the year, then people will stop, look and say,

"My but Isaac is a patriotic fellow. He may be a Jew, but he's O. K." Isaac thought it over and decided maybe that was what was wrong. It so happened that Easter Sunday was the following week and Isaac thought he would try his friend's idea.

People were surprised to see the window being washed and wondered what had come over Isaac. The neighborhood stores were surprised when the curtains were drawn and the florist's wagon backed up to the front door and unloaded beautiful bouquets, floral pieces and flowers of every description. It had begun to get the desired effect. People were talking.

Sunday morning people coming home from the Churches hastened to see Isaac's window. There it was. Beautiful to behold. Flowers banked high on either side, the background and floor a solid mass of flowers and right in the center was a beautiful cross made of white lilies in keeping with the significance of the day. And across the top were inscribed in beautiful letters these words, "Christ has risen, but our prices remain the same."

I relate this story to bring out a fact. You can get publicity from a window display, but be careful how you handle that kind of a window. Don't trim a window with flags and photographs and then fill it up with hatchets, axes, etc. That is all wrong and I don't believe sells goods. A good patriotic window is all right from a publicity standpoint, but what you are interested in is a window that actually sells goods and there are but three things a window must do to bring results. It must do the thing that all advertising must do if we expect to receive any gratifying returns.

First—It must attract attention. Second—It must arouse desire. Third—It must stimulate action.

Let us stop just a moment and analyze this just a little further. Under the heading of *Attracting Attention* we should have these sub-headings.

1. Power of Attraction — A. Movable display; B. Distinctive

Background; C, Life; D, View Point.

2. Color Harmony—A, Harmonizing Colors; B, Dark Colors for Warmth; C, Light Colors for Coolness.

3. Timeliness — A, Seasonable; B, Holidays; C, Set the Pace.

4. Originality—A, Clever Ideas; B, Different Than the Ordinary; C, Individuality.

Arousing Desire:

1. Selling Power — A, Group items; B, Handles toward passers-by; C, Cleanliness; D, Keying the items.

2. Arrangement — A, Straight lines; B, Easy to visualize; C, Small items in front; D, Elevate at back.

3. Balance—A, Center high; B, Slope to both ends and front; C, Nothing more than 2 feet above the level of eye.

4. Lights—A, Spot light; B, Eliminate dark corners.

Stimulating Action:

1. Merchandise Exhibited — A, Do not over crowd; B, Use associated lines only.

2. Window cards—Price Tickets —A, Selling points; B, Price on every item; C, Show practical use; D, Honesty.

Follow out this plan, study other men's ideas, study your trade journals for the information in these trade journals would cost hundreds of dollars if we had to experiment and find out everything for ourselves. Analyze your own conditions, and advertise in conjunction with your display.

And listen, folks, until you appoint someone as window trimmer or sales promoter, and give him time and opportunity to arrange his display (or if you do it yourself); give yourself the time, you will fail.

The window is the most valuable space about the store, and your window trimmer is a salesman, in fact he is a super salesman. He's trying to sell every passerby. He's inviting them into the store, displaying the merchandise intelligently, building confidence, selling your store, your policy and your merchandise. Why shouldn't he have help? The man behind the counter gets credit

for the sales but don't forget the window trimmer is doing his share to bring them in.

In our store we have worked out a plan, a schedule of window trimming and can actually check up results. If you will bear with me just a few moments longer I would like to show you how you can tell whether or not you are getting results.

First of all, plan your windows and keep a record of them. Get a loose leafbook and rule the paper the way you wish putting down the suggested trim, the date, department, etc. And leave a space also for the actual trim. Then prepare a sheet for your monthly trim showing what was displayed, how it was displayed with what results, weather conditions, actual cost and pulling power.

Mr. Haecker used 3'x5" charts with his talk. Numerous interesting questions were asked in the general discussion which followed.

After Mr. Haecker's talk a general discussion on window trimming followed in which many ideas and

stunts on window displays were brought out.

Wednesday evening the members, their wives and friends were guests of the Chicago Association of Commerce at a dinner in the Grand Ball Room, Hotel Sherman.

Thursday Dr. Alfred P. Haake addressed the members on the problem of "The Small Dealer and the Canvasser."

"The average retail dealer," said Dr. Haake, "is not a good salesman. You must learn how to display your merchandise and create a desire on the part of your prospects to own the things you sell."

He said that the canvasser has many more obstacles to overcome in making his sales yet he succeeded because he displayed his merchandise and sold it because he was a salesman.

The retail hardware dealer has permanent location, large stocks, reputation, acquaintanceship with his townspeople and numerous other things in his favor but in many cases didn't even seem pleased to have customers come into his store.

A Few Exhibitors Among the Many Seen at Illinois Hardware Convention

New Sherman Hotel Provides Additional Space for Interesting Displays

H. W. Beegle Company—Electric and gasoline power mowers of the Coldwell Lawn Mower Manufacturing Company, also of the line of tools of the Evansville Tool Works, Incorporated. Representatives: H. W. Beegle, Messrs. Patterson and Herman.

In addition to Mr. Beegle this space was taken care of by Messrs. Patterson and Herman.

L. J. Mueller Furnace Company—Furnaces, furnacette, furnace fittings, etc. Representatives: William A. Tell, F. R. Durson, John Callahan, F. Larson.

Robinson Furnace Company—Gem furnaces. Representatives: J. Harvey Manny, Fred Schuberth, J. G. Garner.

The Excelsior Steel Furnace Company—Furnaces, furnace pipe and fittings, registers, etc. Representatives: W. J. Pendergast, Joe Goldberg, J. G. Brooks, C. E. Glessner.

Milwaukee Corrugating Company—Milcor sheet metal products. Representatives: W. F. Waller, Ben Jones, E. G. Holly, William H. Petersen, F. D. Naylor, A. P. Halm, F. F. Foster.

Wheeling Corrugating Company—Wheeling ware, rubbish burners, Nestable ash cans, etc. Representatives: A. J. Madson, S. T. Scott, A. E. Ketcham, Bob Nixon, E. S. Wilcox, N. J. Olsen, H. W. Armbruster.

Fox Furnace Company—Cabinet

heaters, furnaces. Representatives: S. H. Baker, D. L. Nauman, M. H. Klett, A. T. Roberts.

International Heater Company—Warm air furnaces. Representatives: Les Taylor, D. E. McCabe, J. M. Beech, Reid Mackin, F. L. Fraser, M. J. Mackin.

Vaughan and Bushnell Manufacturing Company—Tools. Representatives: Gus Ruhling, Frank Martin, Dave Benz.

U. S. Register Company—Registers. Representatives: Wayne Young, Charles Pearson.

Greenlee Brothers Company—Augers, bits, chisels, etc. Representatives: Charles Clark.

Carr Supply Company—Ideal furnaces, Carco boiler plate steel furnaces, Auer and Stearns registers, Dunning fittings and Carco humidifier. Representatives: D. Van Evera, Dale V. Carr, Ed. Greisz, Howard L. Mason.

Monitor Furnace Company—Caloric and Monitor furnaces. Representatives: William M. Hanley Bolds, F. H. Moore and James Enright in charge of the exhibit of United Boiler Heating and Foundry Company, Hammond, Indiana, distributors of Monitor products.

Chicago Solder Company—"Kester" line of metal mender, radio solder, acid-core wire solder, rosin-core solder. Representatives: Jas. C. Shaw, salesmanager; F. C. Engelhart, J. H. Humble, J. P. Erich.

Brillion Furnace Company—Brillion furnaces. Representatives: M. P. Ohlsen, Mr. Braunston.

Hero Furnace Company—600 Series Hero furnaces. Representatives: R. S. Patten, H. E. Clutterham, Mac Simkins.

Chicago Elbow Machine Company—Elbow machine. Representatives: Enoch Purnell, Miss Fischer.

Richards-Wilcox Manufacturing Company—Door hangers, garage hardware, builders' brackets, general line, etc. Representatives: W. Guay, C. M. Hogan, A. H. Fox, J. H. Wise.

Send us news items for publication in AMERICAN ARTISAN about local events of interest to industry.

Minnesota Hardware Men Find Northwest Solvent

No Section Is Over Mortgaged—Convention Proves Big Success

"THE Northwest is by no means insolvent or over-mortgaged," B. V. Moore, deputy governor of the Federal Reserve bank of the Ninth district, declared Tuesday afternoon, February 16, in an address on "Fundamentals of Prosperity," before the thirteenth annual convention of the Minnesota Retail Hardware Association in the Auditorium, St. Paul.

Mr. Moore gave the principal talk



C. H. Casey
Secretary Minnesota Hardware

at the opening session of the annual gathering, which will continue until Friday noon. An array of hardware displays said to be the largest in the association's history, filled the entire floor space of the Auditorium, the business sessions being held on the second floor.

Victim of Publicity.

Mr. Moore said the Northwest had been the victim of unfortunate publicity in the past few years through "panaceas," "political halos," "mirages" and "rainbows" offered in aid of agriculture but based on "loose analysis" of the conditions of deflation following the World war. The loss of human earning power in the war had created a burden which this generation and the

next were bound to feel, in his opinion.

"Legislation," he said, "will not change the course of basic economics. The solution lies in the Rock of Ages of the United States of America."

He held an American paper dollar in the air and remarked:

"Give me this kind of money, and I can start out at the North Pole, and they will sing the Doxology for it clear around the globe."

President Gives Address.

H. W. Addison of Marshall, Minnesota, president of the Retail Hardware association, presided and gave the president's address. "Minnesota is coming back," he said, and we have much cause to rejoice."

Charles H. Casey, manager and treasurer of the association, read his reports. Mr. Moore's address was discussed by F. H. Retzlaff of New Ulm.

At the annual meeting of the Retail Hardware Mutual Fire Insurance Company, Charles F. Ladner, president, gave the president's address and reports were made by T. G. McCracken, secretary, and H. Hauser, treasurer.

S. R. Miles gave an address on "Yesterday — Today and Tomorrow" which proved very interesting.

"The Gold Mine of the Tourist Trade," "Ways and Means to Capture It," "The Building of a Hardware Business in a Rural Town" and "Methods Employed by Other Merchants" were among some of the other addresses heard.

Another of grandmother's household gods has gone the way of all junk.

Meaning that the well-known parlor heating stove, that certain thing which carried a perennial shine all over its nickel-plated ornaments, has been discarded as obsolete and passe.

At the Auditorium there was not a single one of the ancient heating arcs to be seen. Instead, the hardware merchants got their eyes filled with the sumptuous "charm" of the

"cabinet" heater.

This thirtieth annual hardware exhibit was larger than last year's and there were several new lines on exhibit. Several furniture exhibits

have been added.

It was estimated that 1,500 merchants and their employes were in the city, preparatory to the opening session at the Auditorium.

Pennsylvania and Atlantic Seaboard Hardware Association Convention Held

*Commercial Museum, Philadelphia,
Scene of Meeting February 16 to 19*

Although the storm played havoc, hundreds of dealers visited the wonderful exhibit held at the Commercial Museum, where the Pennsylvania and Atlantic Seaboard Hardware Association, Incorporated, held its twenty-fifth annual convention, February 16 to 19.

President John A. Ditz, Clarion, in turning over the gavel to his successor, will have completed a year of marked progress for his association.

The increased membership and unselfish spirit shown by the members have made the Pasha Association one of the strongest in the country.

The ever popular Secretary Sharon E. Jones, through his untiring efforts, has to a great degree made the association known throughout the country. He is constantly in touch with all members and has a remarkable memory for names and seldom goes wrong. The membership totals now more than 2,000.

Report of Sharon E. Jones

I have been told and I know by experience that there is nothing as dry and uninteresting to an audience as the annual report of an organization secretary, and for this reason I shall make this report brief and to the point.

The year just closed was, from an association standpoint, uneventful and yet quite successful.

We began the year with 2,190 members. We gained during the year 200 new members and we lost 90 members, leaving a net gain of 110 members for the year.

The success of our association is not to be measured by the number of its membership, but by the active interest the membership has in the association.

In no year of the history of this association has the membership made as much use of the association services, as the following statement of facts will show:

- 200 new members secured during the year.
- 401 members visited at their place of business.
- 231 non-members visited at their place of business.
- 412 members for whom important information was furnished.
- 21 members for whom accounting systems were installed.
- 47 members were given service in store and stock arrangement.
- 12 members were given advertising instruction.
- 3 members were assisted in disposing of their business.
- 34 members were given expert legal advice.
- 44 members were aided in securing employes.
- 23 members were assisted in adjusting disputes.
- 3 members were protected against wildcat promotion schemes.
- 349 members were supplied with accounting records.
- 2,400 members were given special messages at group and local meetings.
- 980 members were given assistance on insurance matters.

31 members were aided in the collection of bad accounts.

10 members recovered \$633 on dead beat accounts.

27 members had their freight vouchers audited.

3 members received \$72 from railroads.

12 members were furnished with expert analysis of their business.

2,300 members were supplied with monthly salesmanship course bulletins.

Over \$10,000 redeemed for members from their dead stock.

2,300 members were saved an average of \$150 each on their fire insurance.

2,300 members and 2,600 non-members were accorded the privileges of a free tuition in the best hardware merchandising school in America—our annual convention and exhibition.

All of the above plus many more services not mentioned were furnished by this association on a membership fee of \$10 per head.

Your Board of Governors has just employed an assistant field secretary to meet the growing demand for these valuable services being rendered the membership. Mr. Robert L. Alexander, a man especially equipped for this work, has been taking a post-graduate course at the National office and our own office and in the Eastern field, but about March 1st will take up the work in Western Pennsylvania with

headquarters possibly at Greensburg, Pennsylvania.

(Introduces Mr. Alexander.)

Your president and secretary have not failed to give you a monthly message in the columns of *Hardware News* during the year and you have been kept posted on the activities of our association in the same manner and by letter, so that I will not punish you with any repetition. But there are a few things that I feel must not be passed by without making special mention of them.

Your Board of Governors have unstintingly given their time and best effort and the benefit of their business experience and many times at no little hindrance to their own business affairs.

Our organization has grown to such proportions that it requires much serious thought, big planning, far-sightedness, level-headedness, wise counsel, and we are most fortunate in having a Board of Governors equal to the occasion. And I want to thank President John A. Ditz and every member of the board for their fine spirit of coöperation.

We are most fortunate in having an army of volunteer boosters who are continually going over the country singing our praises, fighting our battles, killing our enemies—the Associate Members — traveling men and representatives of manufacturers and wholesalers. And I am sure that every member of our association joins me in a vote of thanks to these ever-present helpers in everything that our Association stands for.

Nowhere in this country is there an organization which enjoys such whole-hearted support from the manufacturers and wholesalers of hardware and allied lines. This spirit of friendliness and coöperation makes possible the largest exhibition of manufactured products, the greatest selling institution, the leading school in merchandising, a common meeting place for the manufacturer and distributor on "The Million Dollar Sales Floor." So we are indebted to and are

thankful for their faithful and continued support of this feature of our work.

Do not understand me to say that the retail hardware business has been profitable or even satisfactory the past year, but to the contrary it has been unprofitable and unsatisfactory and indeed it has been so for a period of three years.

The National Retail Hardware Association's survey for the past three years indicates an average profit of less than 1% on the investment to the retail hardware dealers.

Many reasons have been offered in explanation of this condition by the retailers themselves, the wholesalers, the manufacturers, etc. We will not take your time enumerating them, but we will consider the explanation offered by the majority, viz: "Poor Business Methods" or "Lack of Vision."

Ever since the birth of this organization the retail hardware merchant has been warned against the encroachment of competition from mail order houses, chain stores, department stores, peddlers, etc., and not over 10 per cent of the merchants have heeded the warning. The other 90 per cent are now howling about competition cutting the life out of business, and lowering the profits until a reasonable per cent on the investment can no longer be expected. The 10 per cent who heeded the warning and prepared for the fight are not complaining, Why? Because they had the vision that a successful retail hardware business to meet competition must have three qualifications, viz: Goods, Price and Service, and they are applying this rule in their business. This is their motto.

I regret that it is a fact, yes, a deplorable fact, that the retail hardware dealer has lost the opportunity of his business life to meet, shut out, or to overcome this sort of competition.

I am not a pessimist, no, indeed I am an optimist and so is every member of our official family, and so your Program Committee has seen fit to plan a program for this con-

vention which will awaken every sleepy merchant within its hearing and send him home with new ideas, new aspirations, new inspiration and new resolves.

Please take notice that every speaker is an artist in "merchandising," every topic is on "merchandising," and every moment of the time will be spent talking about "merchandising." The whole program is built up around the theme "Better Merchandising," so if you want to know how you can do more business this year than last and how to make a better profit on your investment, give diligent heed to the messages from these speakers and enter seriously into the discussions following each speaker.

Field Secretary W. Glenn Pearce is one to whom you tell your troubles to and it is surprising how quickly all difficulties are overcome. He is a hard worker and shows the strain he has been under. He is a great asset to the association.

Edward G. Baltz is an active worker for the association and deserving of worthy mention for the part played at the annual exhibition.

The Museum was very attractively decorated in colored "fireproof" bunting and the exhibitors totaling more than 400 displayed their goods in the most artistic and attractive manner.

The yearly feature was Gus Daniels and his jazz band.

A well balanced program was arranged for the ladies as well as the gentlemen and no other than Mr. and Mrs. Harry D. Kaiser were the sponsors, ably assisted by their committees. The two features of the entertainment program were the Silver Jubilee Frolics and the Silver Anniversary Assembly.

The progress of the association is due to the sincere efforts of the officers and various committees and it is only by their coöperation that this event has surpassed all others.

The new officers elected to carry on the work of the Pennsylvania and Atlantic Seaboard Hardware Association for the coming year are: Robert J. Murray, Honesdale, president; Harry D. Kaiser, Philadel-

phia, first vice-president; George C. Brown, Punxsutawney, second vice-president; J. A. Winters, East Orange, third vice-president, and Sharon E. Jones, Philadelphia, re-elected secretary-treasurer.

Some of Our Friends Who Exhibited at Pennsylvania Hardware

Tuttle and Bailey Manufacturing Company—Warm Air Registers, Cast Ferro-craft Grilles, Radiator Cabinets. Representatives—T. A. Warner, Earle P. Russell.

The Monitor Furnace Company—Caloric and Monitor Pipe and Pipeless Furnaces. Representatives—George L. Kost and J. E. Bonham.

U. T. Hungerford Brass and Copper Company—Bronze and Copper Screen Cloth, large line of brass and copper products. Representatives—Philip A. Quick, William C. S. Lex, Henry Wilka, James E. Gorman, Edwin Knight, William Canfield.

Klein Stove Company and Caloric Gas Stove Works—Leonard Refrigerators, A-B line Gas Ranges, Cole's Stoves, Caloric Gas Ranges, Cookers, etc. Representatives—Harry Klein, Nathan Klein, James Black, Charles Aarons, D. M. Crawford, James McGaw.

L. J. Mueller Furnace Company—Double Radiator Furnace, Convector, Furnacette, Registers and Fittings, etc. Representatives—C. L. Hewitt, S. M. Gingher, H. P. Mueller.

Lennox Furnace Company—Torrid Zone Furnaces. Representatives—C. H. Schechter, B. C. Taylor, Frank E. Powderly, J. Deane Davis, E. I. Dodd.

Peck, Stow and Wilcox Company—Sheet Metal Tools, Machines and Builders' Hardware. Representatives—George Dewey Arnold, Howard Raymond Perkins, John F. Dolan.

Cooperative Foundry Company—Ranges and Furnaces. Representatives—H. V. Jennings, G. E. Barker, M. C. Cole, C. M. Gatchell, J. C. Culligan.

Richards—Wilcox Manufactur-

ing Company—Garage Hardware, etc. Representatives—H. D. Jameson, W. O'Brien, W. Debilbiss, F. Hottenstein, W. Zimmerman.

Copper-Clad Malleable Range Company—Furnaces, ranges, etc.

Reading Stove Works—Stoves and furnaces.

Republic Metalware Company.

Utica Drop Forge Company.

New Bookkeeping System, Simple and Complete in One Volume, Is Now Available

A new bookkeeping system known as the Simplex System of Faultless Bookkeeping is now available. This system records all details on a single page, entire bookkeeping is accomplished with one book which includes indexed ledger for almost 500 accounts; complete income tax record, recapitulation sheets for inventory, financial statement, balance sheet, insurance and policy record, and a complete record for 12 months covering every detail of the business.

The system combines ledger, cash book, day book and purchase book. It is intended to cover four years.

It is loose leaf on high grade ledger paper and it is simple enough no bookkeeping experience is necessary to use it.

The price of this system is \$15, and may be had from the Book Department of AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago.

Granite City Steel Works Open Sales Office at Memphis, Tennessee

The Granite City Steel Works, Granite City, Illinois, through its general manager of sales, Laurence F. Miller, have announced the opening of a district sales office at Memphis, Tennessee, at 808 Fidelity Bank Building, which will be in charge of F. A. Ernst.

All of the company's products; namely, galvanized sheets, black sheets, blue annealed, tin plate and plates, will be handled by Mr. Ernst, who was formerly district sales manager of the Falcon Steel Company in Chicago.

Iowa Retail Hardware Association Re-elects Officers

At the Iowa Retail Hardware Convention held last week in Des Moines, the following officers were re-elected to carry on the work of the Association for the ensuing year:

President, W. F. Mueller, Fort Dodge; vice-president, Albert Bojens, Atlantic; secretary-treasurer, A. R. Sale, Mason City; member executive committee, C. T. Gadd, Des Moines; directors, T. A. Nichols, Burlington; G. B. Healey, Dubuque; Frank Slaboch, Jr., Tama; C. T. Gadd, Des Moines; Albert Bojens, Atlantic, and C. B. Hill, Spirit Lake.

President Driscoll of A. S. of H. & V. E. Appoints Standing Committees for Ensuing Year

The following Standing Committees which will serve the American Society of Heating and Ventilating Engineers during the coming year were appointed by President W. H. Driscoll at a meeting of the Council in the Hotel Statler, Buffalo, New York, on January 29, 1926:

Executive: F. Paul Anderson, Chairman; J. A. Cutler, A. C. Willard.

Finance: Thornton Lewis, Chairman; E. B. Langenberg, J. F. McIntire.

Membership: W. E. Gillham, Chairman; C. V. Haynes, W. T. Jones.

Publication: S. E. Dibble, Chairman; F. Paul Anderson, W. H. Carrier.

Factory Bulletin Changes Name to International News

The interesting little house organ published monthly by the International Heater Company and known as the *Factory Bulletin* has changed its name to the *International News*. Each month the book carries a resumé of the activities of the organization members and is proving a great success.

Ohio Retail Hardware Dealers Meet for Thirty-Second Convention

Hotel Cleveland Teemed With Hardware Tuesday to Friday

AT THE Hotel Cleveland this week was held the Thirty-second Annual Convention of the Ohio Hardware Association, the convention opening its doors Tuesday, February 16, and holding sessions until Friday, February 19. A large crowd was in attendance at the Ohio convention and the exhibitors were busy during the whole time taking orders.

President Conklin, in his annual address, made a strong plea for better merchandising. His address fairly bristled with optimism and he predicted a good business year ahead. His address follows:

**Annual Address of President
F. R. Conklin**

As I look over this group of intelligent men and women I feel I can add nothing to what you already know. Friends, it is up to you, when you go back home from this convention, filled with new ideas, filled with enthusiasm, proud of your craft, to try and interest your fellow hardware merchant in his association. Advocate and arrange for group meetings; you surely believe in them and know their value. Nothing will pay bigger dividends than well organized groups, and better still is an organization of your own city hardware merchants.

We have in Mr. Carson, our secretary, I believe, one of the best organizers that can be found in any state organization, but it is impossible for him to cover thoroughly the whole state; it's the duty of you men who know the value of these things to help; go back home, tell every stay-at-home in your town about the good ideas you get here and the wonderful time you had, then form your local association.

Right at this time I cannot refrain from saying something about our State organization.

Secretary Carson told you in a recent issue of the Ohio Hardware Exchange, January 12, how the association can help you in many ways if you will but avail yourself of the opportunities and privileges it affords. If you need legal advice, write your secretary. Any information you need about the hardware business can be supplied by your secretary.

Then we have our National Hardware Association, of which you



W. B. Martin
President Elect Ohio Hardware

are a member. This association maintains for your benefit:

First—A simple, complete accounting system, especially for the hardware dealer.

Second—Information service—answering questions of every conceivable character that comes up concerning the hardware business.

Third—Store and stock arrangement—Experts who can assist members with store and stock arrangement problems.

Fourth—Research service—This is one of the most valuable and useful services ever given to the hardware retailer. It costs our national association thousands of dollars to

prepare this information for you. It's yours. Why not use it?

Fifth—Annual survey of hardware stores—You probably all know what happened to your business in 1925 or you think you know. The survey of 1924 hardware business shows that the average hardware store taken from a survey of 43 States only made forty-four cents on each one hundred dollar sale. Gentlemen, something is wrong; it's not the hardware business, it's the man running that business. Get these surveys, study them and pass them on to your fellow hardware merchants.

Agriculture is the greatest industry in the United States. It is our biggest business; there can be no general or lasting prosperity without agricultural prosperity. It is our duty as business men to seek the welfare of the farmer; he has serious problems as all business has. Our welfare and interests are common; when agriculture is depressed, business depressions follow.

American business today demands self regulation and independence. I believe that continued prosperity for the farmer will prevail providing the government of the United States will assume "A hands off policy." We all know there is plenty of business. Mail order house and chain store reports all prove it.

Now just a word about the "Ohio Council of Retail Merchants," of which we are a part. This to me is one of the best and most beneficial organizations with which we are connected. The director of this Council, George V. Sheridan, is one of the keenest, brightest, most alert gentlemen that could be found for this important job. Gentlemen, your affiliation with the Council has saved you many times your investment. Especially is this true of legislative

matters which have been very much neglected until organization of the Council. During the last session of our State Legislature nearly 250 new laws were enacted; not a single law harmful to the retail industry was passed. Credit for this must go to the watchfulness and resourcefulness of the director, Mr. Sheridan. Through his efforts and connections House Bill No. 403 was defeated. This measure contained a sleeper which if allowed to pass would have been the first step to prevent mutual insurance companies from doing business in Ohio. Through the efforts of Council, retail merchants' rate for insurance under the Workman's Compensation Act has been reduced practically 50 per cent in three years. Mr. Sheridan appears later on our program; he will tell you about the very important work of the Council.

Boost your own town, assume your share of civic responsibilities and contribute your moral and material support to any movement towards good government. An efficient yet human civic administration is the backbone of a prosperous town.

Do your part in getting and keeping good churches and schools, for these institutions are the builders of progress for the coming generations.

Patronize your home merchants and professional men, for they are mainly responsible for the comforts, pleasures and opportunities your community affords. In doing so you help them to become stronger and therefore better able to serve you economically and efficiently.

Put yourself in the place of a customer or a visitor to your community or store. Will he not judge you by the welcome he receives, the friendliness he observes, in fact the state of contentment we show? Greet him with a friendly smile, one that you really mean; surely you have every reason in the world to be content in your own home town; your interests both commercial and social are there; you have resources that are probably just developing and yours are the countless oppor-

tunities to make your community a better place in which to live. The happy contented citizen is the better advertisement for any town or business than the biggest billboard you might erect would be.

Keep the confidence of your fellow hardware merchants and community. Ever since the beginning of time confidence has played a tremendous part in the preservation of peace and honor. Individuals, communities and nations filled with confidence in each other find true contentment and good feeling.

The report of Secretary James B. Carson also showed that the asso-



James B. Carson
Secretary Ohio Hardware

ciation was doing fine things for its membership. Secretary Carson's report follows:

Report of Secretary James B. Carson

When I made my report to the convention last year I said that 1924 was not a year in the retail hardware business that had brought prosperity to all of our members and I had a vision at that time of a much better report that I would make to our members at our thirty-second annual convention today.

While I do not believe there has been enough of an increase over the preceding year to be noticeable to any great extent, yet I feel sure that 1925 has been a more satisfactory year to a large majority of our members. Of course I am speaking of the general condition rather than

the individual, for there will be some stores in the state that have fallen behind 1924 in the volume of business done. On the whole we feel that our members have held their own in the face of the most intense competition they have ever known.

This competition is not limited to any locality; the member in the larger city feels it as keenly as does the member in the agricultural district. In the larger city you can look into most any show window and find some article that is regular stock in the stores of our members, while in the smaller town in the farming district we find agents going direct to the farmers with the same kinds of goods that are being sold in the stores, in many cases at selling prices as low as the member's cost. We have just had a case reported to us where a supply house handling mill supplies who is on the jobbers' list is selling through county agents of the farm bureaus fence and other articles used by farmers at prices in some instances lower than our member's cost on the same article.

Investigation for the cause of this condition has led us to believe that manufacturer's production has increased far beyond the demand for home consumption and with a lack of orders for export trade new sources of distribution have been sought out to keep the wheels of the industry turning.

We believe our members are alive to the situation; the correspondence with individual members has almost doubled during the year over any preceding year. The most helpful sign on the horizon is the great number of mergers that are being formed in manufacturing industries that is sure to eliminate a lot of this kind of competition.

Our association has not yet reached that degree of a working organization where they have done all they can to help themselves. Members are still working on an individual basis in their business rather than for a business as a whole for all the members, which they must do before there will be

any great improvement. If more members would look upon their business as a capital investment, something which should pay them dividends on the investment, we believe there would be more of a united effort to make it pay.

Those of you who have three or more employees who come under the provisions of Workmen's Compensation Insurance, are familiar with the reduction in the rate from 45 cents to 25 cents. You would not be enjoying this reduction in your expense on this item if it had not been for your organized effort to bring it about through our association with the Ohio Council of Retail Merchants.

Our office has had a busy year; no doubt made busier by some of the conditions recited. We have attended numerous business conferences where these subjects have been discussed, but the great difficulty in all of them is the inactivity of the members of the different organizations. In May our treasurer, Mr. Baker, attended the meeting of the National Chamber of Commerce held in Washington, D. C. No doubt Mr. Baker will have some report to make of his observation of the work of this body of business men as he has been appointed counselor in their official family from our association.

The congress held by our National Association in Philadelphia in June was a wonderful meeting for work, every delegate being in his place when the meeting opened and it opened at the time specified in the program. I wish I could have something of the same power that Mr. Sheets has, something that makes every member in attendance want to be in his seat when the meetings open.

We want to say a word for our exhibitors; we know from talking with them that they will enjoy your visiting with them and becoming better acquainted. It does not follow that you have to buy from them anything you do not want, but just show them you appreciate having them with us.

Discussion of hardware articles that have been electrified and sold through various other channels of trade occupied most of the time of the association in session on Wednesday.

The main speaker was Colonel John Kick of Dover, whose subject was "Merchandising Electrified Hardware." He pointed out that irons, percolators, stoves, sweepers, waffle irons, etc., before being electrified were handled exclusively by hardware stores but are now sold in many branches of trade, even drug stores, and urged the hardware men to again specialize in this line of goods.

More than 2,000 dealers attended the four-day session.

One of the principal speakers of the Thursday session was H. H. Daughters, merchandising engineer of Painesville, Ohio. Mr. Daughters spoke on "A New Idea in Hardware Merchandising." This address will appear in a later issue of

AMERICAN ARTISAN.

"Taxation" came for a considerable discussion also at the Thursday's session. This topic was discussed by C. A. Dyer, legislative agent, Ohio State Grange and Ohio Farm Bureau Federation, Columbus.

The question box as usual brought out some very interesting pointers on trade practices and problems confronting the individual in his business. A discussion was had on store arrangement, an economical item in the retail hardware business. This discussion was led by W. B. Martin, Mansfield, Ohio.

The officers elected to carry on the work of the Ohio Hardware Association for the ensuing year are: W. B. Martin, President; Robert Martin, Vice-President; John F. Baker, Treasurer; James B. Carson, Secretary. The new directors are: F. R. Conklin, C. S. Carr, Charles Rehburg, H. P. McGhee and Dale Hannah.

Heard and Seen at the Ohio Hardware Exhibits at Cleveland

Pencils and Order Books Were Kept Busy During Entire Meeting

Summit Foundry Company—Gas ranges, furnaces, combination ranges. Representatives — L. A. Taylor, Assistant Sales Manager; H. McGuirl, Ray Rogers.

Cleveland Cooperative Stove Company — Furnaces and stoves. Representatives—J. M. Platz and William K. Wynn.

Wheeling Corrugating Company — Sheet metal products and gas heaters. Representatives — H. E. McCray, Charles McGouth, C. E. Brown, L. C. Purdy.

Fox Furnace Company — Furnaces and Cabinet Heaters. Representatives—E. H. Skinner, W. L. Tulburt, J. E. Miskovsky.

Moore Brothers Company—Furnaces and Stoves. Representatives — George R. Bleimes.

L. J. Mueller Furnace Company —Furnacette and Furnaces. Repre-

sentatives—E. B. Lau, A. D. Knapp and R. M. Moffitt.

Mt. Vernon Furnace and Manufacturing Company—Furnaces and laundry stoves. Representatives—Ray Schweinfurth and "Tommy" Thompson.

Thomas and Armstrong Company —Boiler X Plate furnaces, corn cribs, grain bins. Representatives —C. L. Thomas, Thomas E. Pearson, C. H. Saunders.

American Steel and Wire Company—Wire fencing. Representatives—Henry Squibbs, E. H. Guise, E. J. Wightman, Frank Horning, B. L. Riley and F. W. Ingalls.

Schill Brothers Company—Cozy and New Idea Furnaces. Representatives—George C. Alexander, H. A. Shelley, Wolford Weaver.

Monitor Furnace Company—Monitor and Caloric furnaces. Repre-

representatives: R. A. Baruch, I. Livingston, William Roll.

Hall-Neal Furnace Company—Victor furnaces. Representatives: H. E. Hoagland.

F. O. Schoedinger—Sheet metal products. Representatives: R. L. Davies, R. J. Behringer.



New England Retail Hardware Association, Boston, Massachusetts, February 22 to 24, 1926. George A. Fiel, Secretary, 80 Federal Street, Boston, Massachusetts.

South Dakota Retail Hardware Association, Sioux Falls, February 23 to 25, 1926. C. H. Casey, Secretary, Nicollet and 24th Streets, Minneapolis, Minnesota.

Virginia Retail Hardware Convention and Exhibition, Jefferson Hotel, Richmond, February 23, 24 and 25, 1926. Thomas B. Howell, Secretary, 301 East Grace, Room 906, Richmond.

The Carolinas-Virginia Sheet Metal and Warm Air Heating Contractors' Association, Hotel Richmond, Richmond, Virginia, February 24 and 25, 1926. Richard L. Young, Secretary, Box 1318, Charlotte, North Carolina.

Ohio Sheet Metal Contractors' Association, Toledo, Ohio, February 24, 25 and 26, 1926. George F. Mooney, State Secretary, New First National Bank Building, Columbus, Ohio. F. C. Dunn, Local Secretary, care Builders' Exchange, Toledo.

The Michigan Sheet Metal and Roofing Contractors' Association, Post Tavern Headquarters, Battle Creek, March 1, 2, 3 and 4, 1925. Frank E. Ederle, Secretary, 1121 Franklin Street, S. E., Grand Rapids.

California Retail Hardware and Implement Association, Hotel Whitcomb, San Francisco, March 16, 17 and 18, 1926. Le Roy Smith, Secretary, 112 Market Street, San Francisco.

New Jersey Sheet Metal Contractors' Association, Robert Treat Hotel, Newark, March 23 and 24, 1926. W. G. Shrack, Secretary, 118 North Fourth Street, Camden.

New York State Sheet Metal Contractors Association, Elmira, New York, April 14 and 15, 1926. John J. Yager, Secretary, 817 Sycamore Street, Buffalo.

National Warm Air Heating & Ventilating Association, Annual Convention, St. Louis, Missouri, April 14 and 15. Allen W. Williams, Secretary, 52 West Gay Street, Columbus, Ohio.

Pennsylvania Sheet Metal Contractors' Association, Hotel Lycoming, Williamsport, April 14, 15 and 16, 1926. W. F. Angermyer, Secretary, 7253-55 Franks-town Avenue, Pittsburgh.

Texas Sheet Metal Contractors' Association, Dallas, April 22 and 23, 1926. H. Stanyer, Secretary-Treasurer, 2422 Alamo Street, Dallas.

Southern Hardware Jobbers Association, Atlanta—Biltmore Hotel, Atlanta, Georgia, May 4, 5, 6 and 7, 1925. John Donnan, Secretary-Treasurer, 821 American National Bank Building, Richmond, Virginia.

Southeastern Retail Hardware and Im-

plement Association, (composed of Alabama, Florida, Georgia and Tennessee) Convention and Exhibition, Atlanta, Georgia, May 10, 11 and 12, 1926. Walter Harlan, Secretary, 701 Grand Theatre Building, Atlanta.

Arkansas Retail Hardware Association, Little Rock, Arkansas, May, 1926. L. P. Biggs, Secretary, 815 Southern Trust Building, Little Rock.

National Association of Sheet Metal Contractors, Louisville, Kentucky, May 24 to 28, 1926. Edwin L. Seabrook, Secretary, 608 East Chestnut Street, Philadelphia, Pennsylvania.

Carolinas Hardware Association, Raleigh, North Carolina, June 8 to 10, 1926. A. R. Craig, Secretary, 717-18 Commercial Bank Building, Charlotte, North Carolina.

Mississippi Retail Hardware and Implement Association, Biloxi, June 21, 22 and 23, 1926. Guy Nason, Secretary Starkville.

Comfort Meter Now Available for Distribution by National Warm Air Heating Association

L. Wayne Arny, Director of Public Relations of the National Warm Air Heating & Ventilating Association, 52 West Gay Street, Columbus, Ohio, has announced that the Comfort Meter, which he mentioned at the Urbana meeting, is now ready for distribution.

The Comfort Meter is a novelty—in the shape of a miniature warm air furnace. It shows the condition of temperature, humidity and ventilation in any room which it is placed.

By keeping it filled with water, red liquid in a tube fastened on top of the miniature furnace will pulsate at a rate depending upon the three factors of comfort—temperature, humidity and air motion. By consulting a table furnished with the Comfort meter, unfavorable air conditions in any room can easily be determined.

The Comfort meter, because of its unique features, attracts universal attention. For this reason it is strongly suggested as a window display for furnace dealers. To passers-by on the street it will at once correlate the warm air furnace with comfort and proper air conditions and arouse general interest.

The price of the Comfort meter is \$5, which is the actual cost to this association of manufacture and handling. With it is sent a large card for window display to be arranged as illustrated in the cut here shown.

It is suggested that members of the association, through their sales contracts, bring the attention of all of their dealers to the Comfort meter so that as many of these as possible may be shown throughout the country in dealer's windows.

The Townsend Company Announces One Hundred and Tenth Anniversary

The Townsend Company, New Brighton, Pennsylvania, manufacturers of rivets, nails, wire and wire products, have announced as the oldest wire mill in America its one hundred and tenth anniversary and offer its thanks to its many friends on this occasion for the patronage which they have favored it, and its best wishes to them for a prosperous new year.

The firm was known as R. Townsend and Company in 1816, W. P. Townsend and Company in 1864, C. C. and E. P. Townsend in 1894, C. C. and E. P. Townsend Company in 1905, and in 1916 was changed to the name by which it is still known, The Townsend Company.

The officers are as follows: R. T. Townsend, President and General Manager; J. M. Townsend, Vice-President, and V. L. Bradford, Secretary and Treasurer.

Gray & Dudley Issues Frances Washington Furnace Circulars

Gray & Dudley Company, Nashville, Tennessee, have issued a new circular—No. 3 F W—describing their Frances Washington furnace.

This furnace may be placed in any room of the home. It burns wood or coal and has a circulating capacity four or five times larger than the largest size heating stove, according to the company.

The new circular gives complete details regarding fire pot and overall sizes, finishes, circulation capacities, construction and weights.

In order to keep posted on the latest developments in the manufacturing field, each furnace installer should procure for himself a copy of this circular which can be had on request.

UNISHEAR

Portable and compact, Unishear cuts *any flat stock* quicker, better, cheaper—without burr, without distortion of material. Follows any line exactly, stops accurately at any point.

Needs but one operator even on largest work, straight or irregular.

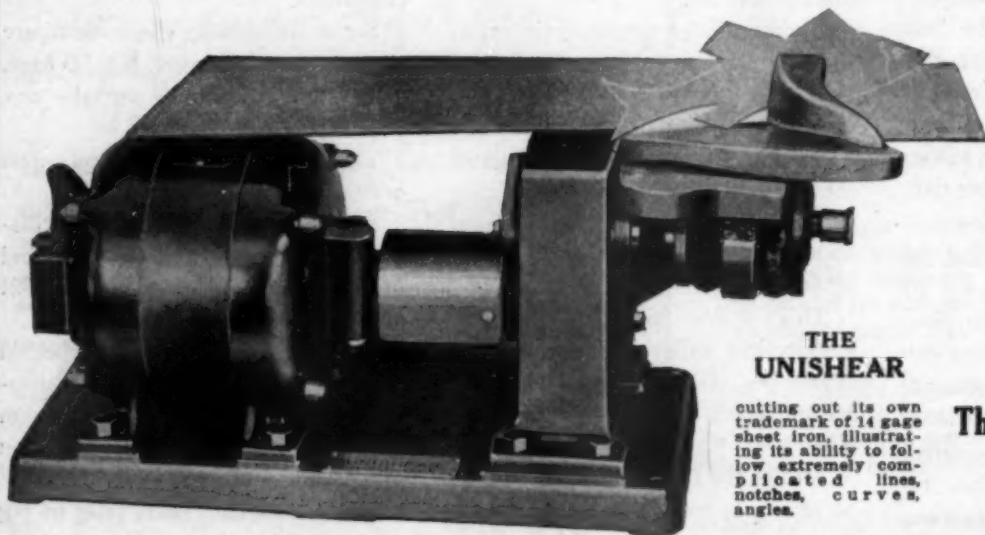
Operates from lamp socket or power circuit. "General Electric Motor" any Voltage or Cycle Available.

Capacity 14 U. S. gage Sheet Steel.

Speed fifteen feet per minute.

Ask us to demonstrate this machine on your work.

Dealers and Salesmen wanted in unassigned territory.



THE
UNISHEAR

cutting out its own trademark of 14 gage sheet iron, illustrating its ability to follow extremely complicated lines, notches, curves, angles.

The Unishear Co., Inc.

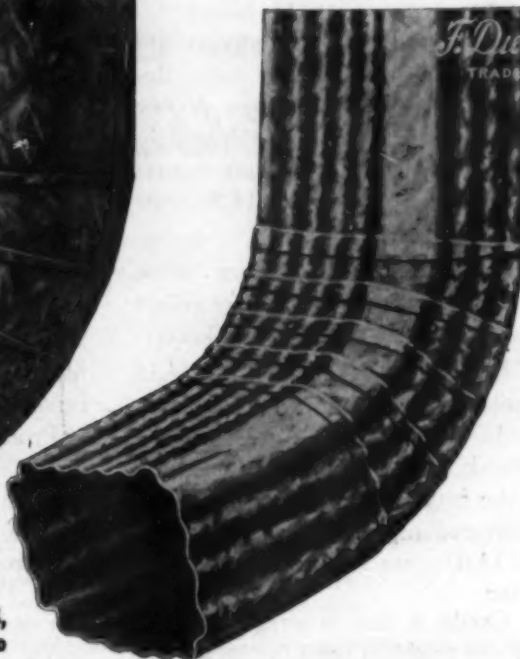
170 FIFTH AVENUE
NEW YORK, N. Y.

**INSIST UPON
DIECKMANN
ELBOWS AND SHOES**

F. Dieckmann

TRADE MARK

**ALL JOBBERS HAVE
THEM OR CAN GET
THEM FOR YOU**



The Ferdinand Dieckmann Co. P. O. Station B,
Cincinnati, Ohio

Mention **AMERICAN ARTISAN** in your reply—Thank you!

Sharpening Caution of Iron and Steel Buyers Result of Abrupt Drop in Coke Prices

Pig Iron Market Dull—Copper and Zinc Shows Strength—Zinc Weak

SETTLEMENT of the anthracite coal strike has lifted some elements of artificiality from the iron and steel market. Conditions this week have been featured by various readjustments to the changed situation. Over-stimulated coke values have shrunk abruptly to a more normal basis.

The sudden deflation has had the effect of causing some buyers of iron and steel to hold back in placing new requirements until they can assure themselves that no general disturbance of prices is to follow.

On the other hand, prospective resumption of operations has released considerable miscellaneous steel business to the mills from mining companies and others serving the anthracite regions.

The events of the week have served to accent the more sluggish note that the market has possessed since the turn of the year. There is more feeling out of things by buyers before taking action.

Copper

Few if any large producers are willing to shade 14.37½ cents delivered in the Connecticut Valley for electrolytic to be shipped in March-April, but there were reports of offerings by others at 14.30 cents delivered.

Refinery positions were again somewhat easier with readier sellers and prices about five points lower.

Electrolytic is quotable at 14.15 cents f. o. b. refinery for prompt and February, 14.20 cents for March and 14.25 cents for April. Lake copper is easier at 14.50 cents delivered and casting copper weaker at 13.60 cents f. o. b. refinery.

Zinc

Grade A zinc is irregular. One of the principal manufacturers have

not lowered their price from 10.25 cents delivered.

Another large producer is quoting on current business for early shipment 9.50 to 9.75 cents delivered, but it reported that on average basis contracts for future shipment they would sell delivered in the usual radius at one cent per pound above the price of Prime Western at St. Louis.

This would mean, as regards Connecticut valley delivery, only 63 cents per 100 lbs. above Prime Western.

Tin

Straits tin for prompt delivery is as scarce as ever and the quotation is entirely nominal at 64.25 cents, but owing to arrivals of English refined tin this is now available at 64.00 cents or ¼ cent under Straits.

Offerings of Straits for February delivery are extremely limited, and here again the price of 64.00 cents is entirely nominal.

Sales of March delivery are reported at 63.50 cents, April at 63.00 cents with sellers over at these prices.

February - March and March-April shipments from the Straits are offered at 62.75 cents but the interest continues to be centered on the earlier positions.

Lead

The principal factor in the St. Louis district, previously holding at 9.10 cents St. Louis basis for March, has lowered the price to 9.00 cents for that month.

Prompt lead is available at 9.00 cents St. Louis basis and appears to be in comfortable though not excessive supply.

Pig Iron

At Pittsburgh pig iron producers are endeavoring to stir up some interest in second quarter require-

ments among foundry and malleable customers.

Some are quoting the same figure as for the spot market, \$20.50 base, valley, but are failing to take any orders.

The trade generally expects iron ore to advance 25 or 50 cents.

At Chicago melters are slowly displaying increased interest in second quarter merchant iron but caution still governs their actions.

February shipments are expected to exceed January 1926, and February 1925. Malleable foundries in Milwaukee are especially busy on automobile and implement work.

At Birmingham small sales of pig iron for the second quarter have been increasing, furnace interests are of steady production.

Quotations are strong at \$22 for No. 2 foundry, \$23 being asked for smaller lots for early delivery.

The local melt is showing improvement. Twenty-five blast furnaces are operating in this district, 14 of them on foundry and nine on basic.

Old Metals

Wholesale quotations in the Chicago district, which should be considered as nominal, are as follows: Old steel axles, \$17.00 to \$17.50; old iron axles, \$25.50 to \$26.00; steel springs, \$18.50 to \$19.00; No. 1 wrought iron, \$13.75 to \$14.25; No. 1 cast, \$16.00 to \$16.50, all per net tons. Prices for non-ferrous metals are quoted as follows, per pound: Light copper, 9 cents; zinc, 5 cents, and cast aluminum, 19 cents.

Solder

Chicago warehouse prices on solder are as follows: Warranted 50-50, \$41.00; commercial 45-55, \$38.50, and plumbers', \$36.00, all per 100 pounds.

Labor + Material = Money
 Save them all by
 using Power-Saving Tools.

From a hammer to the
 largest brake or shear—
 if it's used by the
 Sheet Metal Worker or
 Furnaceman — we can
 supply it.

There's many a short-cut
 to added profit in new and
 up-to-date tools — and —
right now is the best time
 to buy them from —

The J.M. & L.A. Osborn Co.
CLEVELAND

"Everything used in Sheet Metal Work"

ARMCO INGOT IRON

The Purest Iron Made

ARCHITECTS and Contractors are
 well acquainted with this long-
 lasting sheet metal. Our stock includes
 every size and gauge required by the
 trade.

"Since 1866" we have been serving and
 satisfying customers in all parts of the
 country.

Everything in Sheet Metal

Coke and Charcoal
 Tin Plate
 Roofing Plate
 Conductor Pipe
 Gutter
 Tinner's Supplies

Brass—Copper
 Nickel
 (in all forms)
 "Mond-70"
 Babbitt
 Solder

MERCHANT & EVANS CO.
PHILADELPHIA

WAREHOUSES

NEW YORK CLEVELAND
 KANSAS CITY DETROIT
 CHICAGO



Tell Them to Stop Worrying

ARMCO Ingot Iron will help solve your customers' sheet metal problems. They want this assurance. The contractor who uses ARMCO Ingot Iron can tell his customers that it resists rust and lasts longer because it is "the purest iron made."

You will like the easy working qualities of ARMCO Ingot Iron, and take pride in the clean cut jobs which you can turn out with this pure iron. And the profits are bigger every time.

Order ARMCO Ingot Iron the next time you buy sheets. You'll get the easiest metal to work and the longest lasting iron made.

In addition, if you aren't already enjoying the benefits of being an ARMCO Ingot Iron Shop, mail the coupon below. Find out how ARMCO helps build your business.

The American Rolling Mill Company

Middletown, Ohio

(Export)

The ARMCO International Corporation
 Cable Address — ARMCO, Middletown

ARMCO INGOT IRON

The Purest Iron Made



The Secretary,
 The Ingot Iron Shops,
 Middletown, Ohio.

Tell us how the Ingot Iron
 Shop plan will help build
 our business.

We buy ARMCO Ingot Iron from:

Name

Address

City

State

(American Artisan-2-20-26)

Chicago Warehouse Metal and Furnace Supply Prices

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing Western Hardware and Metal prices corrected weekly.

METALS

PIG IRON

Chicago Foundry	\$23 00
Southern Fdy., No. 2 27 01 28 01	
Lake Superior Charcoal.....	29 04
Malleable	23 00

FIRST QUALITY BRIGHT TIN PLATES

IC 20x28 112 sheets.....	\$27 00
IX 20x28.....	29 90
IXX 20x28 56 sheets.....	16 20
IXXX 20x28.....	17 20
IXXXX 20x28.....	18 40

TERNE PLATES

	Per Box
IC 20x28, 40-lb. 112 sheets	\$25 10
IX 20x28, 40-lb. "	28 00
IC 20x28, 30-lb. "	31 30
IX 20x28, 30-lb. "	34 20
IC 20x28, 25-lb. "	30 30
IX 20x28, 25-lb. "	33 20
IC 20x28, 20-lb. "	17 80
IX 20x28, 20-lb. "	20 65
IC 20x28, 15-lb. "	16 65
IX 20x28, 15-lb. "	16 35
IC 20x28, 12-lb. "	15 35
IX 20x28, 12-lb. "	13 65

"ARMCO" INGOT IRON PLATES

No. 8 ga. up to and including	
1/4 in.—100 lbs.....	4 65

COKE PLATES

Cokes, 80 lbs., base, 20x28.....	\$12 70
Cokes, 90 lbs., base, 20x28.....	12 95
Cokes, 100 lbs., base, 20x28.....	13 25
Cokes, 107 lbs., base, IC	
20x28.....	13 60
Cokes, 135 lbs., base, IX	
20x28.....	15 40
Cokes, 155 lbs., base, 56	
sheets.....	8 80
Cokes, 175 lbs., base, 56	
sheets.....	9 70
Cokes, 195 lbs., base, 56	
sheets.....	10 65

BLUE ANNEALED SHEETS

Base 10 ga.....per 100 lbs.	\$2 80
"Armco" 10 ga.....per 100 lbs.	4 00

ONE PASS COIL ROLLED BLACK

No. 18-20.....per 100 lbs.	\$3 80
No. 22-24.....per 100 lbs.	3 85
No. 26.....per 100 lbs.	3 90
No. 27.....per 100 lbs.	3 95
No. 28.....per 100 lbs.	4 10
No. 29.....per 100 lbs.	4 10

GALVANIZED

"Armco" 28.....per 100 lbs.	\$6 70
No. 16.....per 100 lbs.	4 50
No. 18-20.....per 100 lbs.	4 65
No. 22-24.....per 100 lbs.	4 80
No. 26.....per 100 lbs.	4 95
No. 27.....per 100 lbs.	5 10
No. 28.....per 100 lbs.	5 25
No. 29.....per 100 lbs.	5 75

BAR SOLDER

Warranted	
50-50.....per 100 lbs.	41 00
Commercial	
45-55.....per 100 lbs.	38 50
Plumbers.....per 100 lbs.	36 00

ZINC

In Slabs.....	8 75
---------------	------

SHEET ZINC

Cask Lots (500 lbs.).....	14 00
Sheet Lots.....	15 00

BRASS

Sheets, Chicago base.....	19 1/4 c
Mill base.....	19 1/4 c
Tubing, brazed base.....	27 1/2 c
Wire, base.....	19 1/2 c
Rods, base.....	17 1/2 c

COPPER

Sheets, Chicago base.....	22 1/2 c
Mill base.....	23 1/2 c
Tubing, seamless base.....	25 1/2 c
Wire No. 8 & 10, B. & S. Ga.	
.....	20 1/2 c
Wire No. 11, B. & S. Ga.....	20 1/2 c

HARDWARE, SHEET METAL SUPPLIES, WARM AIR FURNACE FITTINGS AND ACCESSORIES.

LEAD

American Pig	\$10 80
Bar	11 80

Sheet

Full Colls.....per 100 lbs.	14 00
Cut Colls.....per 100 lbs.	14 25

TIN

Pig Tin.....per 100 lbs.	70 50
Bar Tin.....per 100 lbs.	71 50

ASBESTOS

Paper up to 1/16.....	6c per lb.
Roll board.....	6 1/4 c per lb.
Mill board 3/32 to 1/4.....	6c per lb.
Corrugated Paper (250	
sp. ft. to roll).....	\$6.00 per roll

BRUSHES

Hot Air Pipe Cleaning	
Bristle, with handle, each \$0 85	
Flue Cleaning	
Steel Only, each.....	1 25

BURRS

Coppers Burrs only.....	45%
-------------------------	-----

CEMENT, FURNACE

American Seal, 5-lb. cans, net \$	45
American Seal, 50-lb. cans, net	90
American Seal, 35-lb. cans, net	2 00
Asbestos, 5-lb. cans, net.....	45
Pecora.....per 100 lbs.	7 51

CHIMNEY TOPS

Iwan's Complete Rev. &	
Vent.....	30%
Iwan's Iron Mountain only.....	35%
Standard.....	30 to 40%

CLINKER TONGS

Front Rank, each.....	\$ 75
Per doz.....	8 40

CLIPS

Damper	
Acme, with tall pieces,	
per doz.....	\$1 25
Non Rivet tall pieces,	
per doz.....	35

COPPERS—Soldering

Pointed Roofing	
3 lb. and heavier.....per lb.	40c
2 1/2 lb.per lb.	45c
2 lb.per lb.	45c
1 1/2 lb.per lb.	55c
1 lb.per lb.	60c

CORNICE BRAKES

Chicago Steel Bending	
Nos. 1 to 6B.....	Net

COUPLING ROSE

Brass.....per doz.	\$3 20
--------------------	--------

OUT-OFFS

Kuehn's Korraht Kutoffs:	
Galv. plain, round or cor. rd	
standard gauge.....	40%
24 gauge.....	50%

DAMPERS

"Yankee" Hot Air	
7 inch, each 20c, doz.....	\$1 75
8 inch, each 25c, doz.....	2 40
9 inch, each 30c, doz.....	3 75
10 inch, each 32c, doz.....	3 00

Smoke Pipe

7 inch, each.....	\$ 35
8 inch, each.....	40
9 inch, each.....	50
10 inch, each.....	60
12 inch, each.....	90

Reversible Check

8 inch, each.....	\$1 50
9 inch, each.....	1 70

DIGGERS

Post Hole	
Iwan's Split Handle	
(Eureka)	
4-ft. Handle.....per doz.	\$14 00
7-ft. Handle.....per doz.	36 00
Iwan's Hercules pattern,	
per doz.....	14 90

RAVES TROUGH

Galv. Crimpedge, crated..	75 & 8%
---------------------------	---------

ELBOWS

Conductor Pipe Milcor.	
Galv., plain or corrugated,	
round flat Crimp.....	65%
Std. Gauge.....	55%
28 Gauge.....	40%
26 Gauge.....	10%

Square Corrugated

Standard Gauge.....	60%
No. 28 Gauge.....	45%
26 Gauge.....	30%

Portico Elbows

Standard Gauge Conductor Pipe,	
plain or corrugated.....	
Not nested.....	70 & 5%
Nested solid.....	70 & 5%

ELBOWS—Stove Pipe

1-piece Corrugated, Uniform Blue	
"Milcor" No. 28 gauge.....	Dos.
6-inch.....	\$1 15
6-inch.....	1 25
7-inch.....	1 75

Special Corrugated

6-inch.....	\$1 85
7-inch.....	1 65

Adjustable—Uniform Blue

"Milcor" No. 28 Gauge, Uniform	
Blue.....	
6-inch.....	\$1 45
6-inch.....	1 75
7-inch.....	2 40

WOOD FACES—50% off list.

726-6-12% (100 rods).....	\$29 02
1942-6-14% (100 rods).....	44 02

FENCE

FILES AND RASPS

Heller's (American).....	50-10%
American.....	60-10%
Arcade.....	60%
Black Diamond.....	40-10-5%
Eagle.....	60%
Great Western.....	50%
Kearney & Foot.....	50%
McClellan.....	50%
Nicholson.....	50%
Simonds.....	60%

FIRE POTS

Ashton Mfg. Co.	
Complete line	
Fire pots and Torches.....	62%

OTTO BERNZ CO.

No. 1 Furn. Gasolene with	
large shield, 1 gal.....	\$ 6 75
No. B Furn. Kerosene, 1	
ga.....	15 12
No. 10 Brazier, Kerosene	
or Gasolene, 10 gals.....	47 52
No. 5 Torch, Gasolene or	
Kerosene, 1 pt.....	7 92
No. 55 Torch, Gasolene, 1	
quart.....	5 40
No. 94 Torch, Gasolene, 1	
pt.....	4 05

Clayton & Lambert's

East of west boundary line of	
Province of Manitoba, Canada,	
No. Dakota, So. Dakota, Ne-	
braska, Kansas, Oklahoma, Ar-	
izona, San Angelo and Laredo,	
Texas.....	52%
West of above boundary line	
.....	45%

Geo. W. Diener Mfg. Co.

No. 02 Gasolene Torch, 1	
qt.....	\$ 5 50
No. 0250, Kerosene, or	
Gasolene Torch, 1 qt.....	7 50
No. 10 Tinner's Furn.	
Square tank, 1 gal.....	13 60
No. 15 Tinner's Furn.	
Round tank, 1 gal.....	13 00
No. 21 Gas Soldering Furn-	
nace.....	8 60
No. 110 Automatic Gas	
Soldering Furnace.....	10 50

Double Blast Mfg. Co.

Gasolene, Nos. 25 and 36.....	60%
-------------------------------	-----

Quick Meal Stove Co.

Vesuvius, P. O. B. St. Louis 20%	
(Extra Disc't. for large	
quantities)	

Chas. A. Homes, Inc.

Busser No. 1.....	\$ 9 00
Busser No. 2.....	12 00
Busser No. 22.....	12 50
Busser No. 42.....	15 00
Busser No. 43.....	19 00

GALVANIZED WARE

Falls (Galv. after made),	
10-qt.....	\$2 20
10-qt.....	\$2 25

GLASS

Single Strength, A, 25-in.	
bracket.....	55%
Single Strength, A, 34 to 40-	
in. bracket.....	62%
Single Strength A, all other	
brackets.....	61%
Double Strength A, all sizes.....	62%
Tubs (Galv. after made),	
No. 1.....	\$6 25
No. 2.....	7 20

HANGERS

Conductor Pipe	
Milcor Perfection Wire.....	35%
Eaves Trough	
Milcor Eclipse Wire.....	15%
Milcor Triple Wire.....	10%
Milcor Milwaukee Extension	
10%.....	
Milcor Steel (galv. after	
forming) List plus.....	12 1/2%
Milcor Selflock E. T. Wire,	
List plus.....	60%

HOOKS

V. & B. No. 1, each.....	\$0 25
--------------------------	--------

Conductor

Milcor	
"Direct Drive" Wrought	
Iron for wood or brick.....	10%

Hay

V. & B. No. 1, each.....	\$0 25
--------------------------	--------

HUMIDIFIERS

"Front-Back," Automatic	
In single lots.....	50%
In lots of 10 or more.....	55-5%
In lots of 25 or more.....	50-10%
Vapor pans, etc., each.....	50%

LIFTERS

Stove Cover	
Coppered.....per grs.	\$8 00
Alaska.....per grs.	4 75

MALLETS

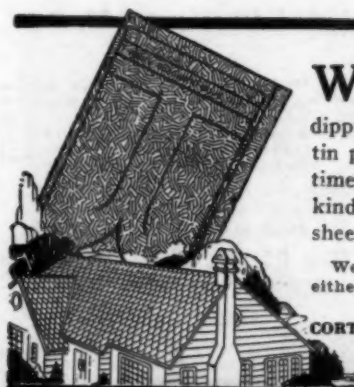
Tinner's	
Hickory.....per doz.	\$2 25

MITRES

Galvanized steel mitres, and	
caps, end pieces, outlets.....	30%
Milcor	
Galv. one piece stamped.....	40%

NAILS

Cut Steel.....	\$4 25
Cut Iron.....	4 25
Wire	
Common.....	8 15
Cement Coated.....	2 20



WE make both kinds of galvanized shingles — hand dipped being stamped from prime tin plate and immersed one at a time in molten zinc and the other kind which are stamped from sheets already galvanized.

We also make painted shingles—either red or green.

CORTRIGHT METAL ROOFING CO.
50 N. 23rd Street, Philadelphia
528 S. Clark Street, Chicago

CORTRIGHT METAL SHINGLES

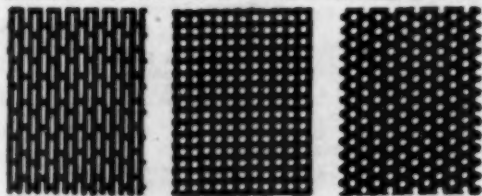
for
Stores Offices
and Homes

Hopson Metal Ceilings and Sides

Twenty dignified designs, characteristic Hopson Metal Ceilings and Sides. They're all easy to match and install. Our pictorial catalogue will show what we have to offer in original designs. Get a copy today.

W. C. HOPSON CO.
216 Ellsworth Ave. Grand Rapids, Mich.

PERFORATED METALS



All Sizes and Shapes of Holes
In Steel, Zinc, Brass, Copper, Tinplate, etc.
For All Screening, Ventilating and Draining
EVERYTHING IN PERFORATING METAL

THE HARRINGTON & KING PERFORATING CO.

5649 FILLMORE ST.—CHICAGO, ILL. U. S. A.
NEW YORK OFFICE: 114 LIBERTY ST.

50-INCH FORMING ROLL

This Forming Roll is built in all standard sizes, with our Patented Opening Device by means of which it is opened and closed in a few seconds.

We build a complete line of Shears and Punches, all sizes, for hand or belt power.

Write for Catalog "R"
BERTSCH & CO., Cambridge City, Ind.



WHEN you write to advertisers please mention that you saw it in
AMERICAN ARTISAN

CHICAGO STEEL SLITTING SHEAR

**LIGHT—POWERFUL
DURABLE**



Capacity 10 gauge sheets
Any Length or Width
Flat Bars 3/16x2"
Weight 22 pounds

Price \$12.50 Net
F. O. B. Chicago

Made of pressed steel and equipped with hold-down. Blades of highest grade crucible steel. Most indispensable high grade shears made. Equal to other shears selling at over twice the price. **ORDER YOURS TODAY.**

DREIS & KRUMP MFG. CO., 7404 Loomis St., Chicago

MARSHALLTOWN

Throatless Shears



HERE is a machine that will do all your sheet cutting. It takes sheets of any size and does accurate work quickly. It is our No. 18 Hand Power Shear, the size for the average shop. It is high grade throughout, being made of the strongest and toughest metals.

It sells at a price which makes it possible for you to own one **NOW.**

Covered By Patent
No. 1020508

Address Dept. A. A. and ask for our catalog and price list covering our entire line.

MARSHALLTOWN MFG. CO., Marshalltown, Iowa

Sheets

We sell the best grades of all kinds of Sheet Metal.
Write today for complete catalog.

**GALVANIZED STEEL
BLACK STEEL
BLACK and GALVANIZED ARMCO IRON
BLACK and GALVANIZED TONCAN METAL
TERNE PLATE
BRIGHT TIN
ZINC LEAD
COPPER**

BERGER BROS. CO.

229 to 237 ARCH STREET
WAREROOMS AND FACTORY: 100 to 114 BROAD STREET
PHILADELPHIA, PA.

ÆOLUS FOR HOMES



The 12-Cylinder Ventilator
Used in Every State
in the Union.

**SPECIFY ÆOLUS
VENTILATORS**

The home should be properly ventilated—few of them are. Here is a sales opportunity often overlooked by the average Sheet Metal Worker, but one which offers a lucrative business to those who take advantage of it.

Æolus-Dickinson Co.

Vent. Makers Since 1888
3332-52 South Artesian Avenue
CHICAGO
Phone: Lafayette 1862-1863

ADVERTISERS' INDEX

The dash (—) indicates that the advertisement does not appear in this issue.

A		M	
Aeolus Dickinson Co.	51	Marsh Lumber Co.	—
Allred Mfg. Co.	58	Marshalltown Heater Co.	9
American Furnace Co.	—	Marshalltown Mfg. Co.	51
American Rolling Mill Co.	49	May-Fiebeger Co.	—
American Steel & Wire Co.	55	Merchant & Evans Co.	49
American Tube & Stamping Co.	—	Meyer Furnace Co., The.	5
American Wood Register Co.	—	Meyer Bros. Co., F., The.	12
Arex Co.	52	Milwaukee Corr. Co.	Back Cover
B		Monitor Furnace Co.	—
Barnes Zinc Products Co.	—	Mt. Vernon Furn. & Mfg. Co.	9
Berger Bros. Co.	51	Mueller Furnace Co., L. J.	2
Berger Co., L. D.	—	N	
Bernz Co., Otto	—	National Air Moistener Co.	6
Bertsch & Co.	51	National Enameling & Stamp-	
Braden Mfg. Co.	—	ing Co., Granite City Steel	
Brillion Furnace Co.	6	Works	—
Burgess Soldering Furnace Co.	—	New Jersey Zinc Sales Co., The	—
C		Northwestern Stove Repair Co.	8
Chicago Elbow Machine Co.	—	O	
Chicago Furnace Supply Co.	—	Oakland Fdy. Co.	—
Chicago Solder Co.	—	Osborn Co., The J. M. & L. A.	49
Clark-Smith Hardware Co.	55	P	
Clayton & Lambert Mfg. Co.	—	Parker-Kalon Corp.	—
Cleveland Castings Pattern Co.	4	Peck, H. E.	58
Cleveland Cooperative Stove Co.	4	Peninsular Stove Co.	4
Coes Wrench Co.	55	Peck, Stow & Wilcox Co.	—
Col-Burn Heater Co.	—	Pecora Paint Co.	—
Connors Paint Co., Wm.	—	Premier Warm Air Heater Co.	—
Copper & Brass Research	—	Q	
Association	—	Quick Meal Stove Co.	52
Cortright Metal Roofing Co.	51	Quincy Pattern Co.	8
Cox Stove Co., Abram	—	R	
Crown Oil Burner Co.	—	Richardson & Boynton Co.	—
D		Rock Island Register Co.	8
Dieckmann Co., Ferdinand	47	Robinson Co., A. H.	—
Diener Mfg., Geo. W.	52	Robinson Furnace Co.	9
Double Blast Mfg. Co.	52	Royal Ventilator Company	—
Double-Duty Elbow Co.	—	Rudy Furnace Co.	—
Dreis & Krump Mfg. Co.	51-55	Rybolt Heater Co.	—
E		S	
Eaglesfield Mfg. Co.	—	Sall Mountain Co.	—
Excelsior Steel Furn. Co.	—	Schill Brothers Co.	—
F		Schwab & Sons, R. J.	—
Fanner Mfg. Co.	8	Security Stove & Mfg. Co.	—
Federal Mfg. Co.	8	Sheet Steel Trade Ex. Comm.	15
Floral City Heater Co.	—	Special Chemicals Co.	—
Forest City Fdy. & Mfg. Co.	7	Standard Fdy. & Mfg. Co.	—
Fox Furnace Co.	—	Standard Furn. & Supply Co.	—
Friedley-Voshardt Co.	52	Standard Ventilator Co.	55
G		Stearns Register Co.	10
Gerock Bros. Mfg. Co.	55	St. Clair Foundry Corp.	7
Gray & Dudley Co.	—	St. Louis Heating Co.	6
Great Lakes Supply Co.	—	St. Louis Tech. Inst.	—
H		Sturtevant Co.	—
Hardware Specialty Co.	—	Success Heater Mfg. Co.	—
Harrington & King Perf. Co.	51	—	Front Cover
Hart & Cooley Co.	11	T	
Heating Systems & Supply Co.	—	Taylor Co., N. & G.	—
Henry Furnace & Fdy. Co.	—	Thatcher Co.	—
Hero Furnace Co.	—	Thermo Gas Furnace Co.	—
Hess-Snyder Co.	—	Tuttle & Bailey Mfg. Co.	13
Hessler Co., H. E.	—	U	
Homer Furnace Co.	—	Utica Heater Co.	2
Hopson Co., W. C.	51	Unishear Co., The, Inc.	47
Hussey Co., C. G.	53	V	
I		Vedder Pattern Works	8
Inland Steel Co.	—	Viking Shear Co.	—
Independent Register Co.	8	W	
International Heater Co.	16	Warm Air Furnace Fan Co.	—
Iwan Bros. Co.	—	Walworth Run Fdy. Co.	—
K		Waterloo Register Co.	—
Kirk-Latty Mfg. Co.	8	Waterman-Waterbury Co.	—
Kruse Co.	—	Western Steel Products Co.	—
L		Wheeling Corrugating Co.	—
Lalanc & Grosjean Mfg. Co.	—	Whitney Metal Tool Co.	53
Lamneck & Co., W. E.	—	Whitney Mfg. Co., W. A.	—
Langenberg Mfg. Co.	—	Williams Hardware Co.	—
Lennox Furnace Co.	—	Williamson Heater Co.	—
Liberty Foundry Co.	—	Wise Furnace Co.	—
Lupton's Sons Co., David	—	W	

Markets—Continued from page 50

NETTING, POULTRY		ROOFING	
Galvanized before weav-	—	Best grade, slate surf. prep'd	\$2 30
ing	45-10%	Best talc surfaced	2 65
Galvanized after weaving	45%	Medium talc surfaced	2 00
		Light talc surfaced	1 20
		Red Rosin Sheeting, per ton	\$7 00
PASTE		SCREWS	
Asbestos Dry Paste:		Sheet Metal	
200-lb. barrel	\$15 00	No. 7, 1/2x1/4, per gross	\$0 52
100-lb. barrel	8 00	No. 10, 1/2x1/4, per gross	65
35-lb. pail	3 25	No. 14, 1/2x1/4, per gross	82
10-lb. bag	1 00		
5-lb. bag	55		
2 1/2-lb. cartons	30		
PIPE		SHEARS, TINNERS' & MACHINISTS'	
Conductor		Viking	\$22 00
Cor. Rd., Plain Rd or Sq.		Lanark Throatless	
"Interlock" Galvanized		No. 13	35%
Crated and nested (all	75-2 1/2%	Shear blades	10%
gauges)		(f. o. b. Marshalltown, Iowa.)	
Crated and not nested	70-15%		
(all gauges)		Peerless Steel Squaring	
"Milcor" "Titelock" Uniform		Foot Power	
		No. 1-30", 18 ga. cap.	15%
		No. 2-38", 18 ga. cap.	15%
		No. 4-52", 18 ga. cap.	15%
		No. 10-120", 22 ga. cap.	15%
		No. 4A-52", 16 ga. cap.	15%
Blue Stove		Cast Iron Foot Power	
28 gauge, 5 inch U. C.		No. 01-30", 18 ga. cap.	15%
nested	11 00	Power Driven	
28 gauge, 6 inch U. C.		No. 100 Series, 2 Shaft Drive.)	
nested	12 00	No. 142-42", 18 ga. cap.	15%
28 gauge, 7 inch U. C.		(No. 200 Series, 2 Shaft Under-	
nested	14 00	neath Drive.)	
30 gauge, 5 inch U. C.		No. 242-42", 14 ga. cap.	15%
nested	10 00	(No. 300 Series, 3 Shaft Under-	
30 gauge, 6 inch U. C.		neath Drive.)	
nested	10 50	No. 342-42", 19 ga. cap.	15%
30 gauge, 7 inch U. C.		No. 372-72", 10 ga. cap.	15%
nested	13 00	(No. 500 Series, 3 Shaft Under-	
		neath Drive.)	
T-Joint Made up		No. 596-96", 10 ga. cap.	15%
6-inch, 28 ga.	per 100 32 50	(No. 600 Series, 3 Shaft Under-	
		neath Drive.)	
Furnace Pipe		No. 6120-120", 3/16" cap.	15%
Double Wall Pipe and			
Pipe Fittings	50%		
Single Wall Pipe, Round			
Iron Pipe Galvanized	50%		
Galvanized and Black			
Fittings	50%		
Milcor Galvanized			
Pipe and Fittings	50%		
Lead			
Per 100 lbs.	\$12 50		
POKERS, STOVE		SHOES	
Wrt Steel, str't or bent.		Galv. Std. Gauge, Plain or	
Nickel Plated, coil handles		corg. round flat crimp.	45%
per doz.	\$0 75	28 gauge round flat crimp.	40%
		14 gauge round flat crimp.	10%
		Conductor	65%
POKERS, FURNACE		SNIPS, TINNERS'	
Each	\$0 50	Glover Leaf	40 & 10%
PULLEYS		National	40 & 10%
Furnace Tackle	per doz. \$0 60	Star	50%
per gross	\$ 00	Milcor	Not
Furnace Screw (encased)		SQUARES	
per doz.	75	Steel and Iron	Net
Ventilating Register		(Add for bluing, \$3 per doz. net.)	
Per gross	\$ 00	Mitre	Net
Small, per pair	30	Try	Net
Large, per pair	50	Try and Bevel	Net
		Try and Mitre	Net
PUTTY		Fox's	per doz. \$5 00
Commercial Putty, 100-lb.		Winterbottom's	10%
kits	\$2 40		
QUADRANTS		STOPPERS, FLUE	
Malleable Iron Damper	10%	Common	per doz. \$1 10
REDUCERS—Orel Stove Pipe		Gem. No. 1	per doz. 1 10
Per doz.	\$2 00	Gem. Flat, No. 2	per doz. 1 00
BASEBOARD REGISTERS		VENTILATORS	
Excelsior	50%	Standard	30 to 40%
FLOOR REGISTERS AND BORDERS		WIRE	
Cast Iron	20%	Plain annealed wire, No. 8	
Steel and Semi-Steel	40%	per 100 lbs.	\$3 04
Baseboard	40%	Galvanized barb wire, per	
Adjustable Ceiling		100 lbs.	\$ 90
Ventilators	40%	Wire cloth—Black painted,	
Register Faces—Cast and Steel		12-mesh, per 100 sq. ft.	2 10
Japanned, Bronzed and		Cattle Wire—galvanized	
Plated, 4x6 to 14x14	40%	catch weight spool, per	
Large Register Faces—Cast,		100 lbs.	\$ 35
14x14 to 38x43	40%	Galvanized Hog Wire, 60 rod	
Large Register Faces—Steel,		spool, per spool	\$ 24
14x14 to 38x43	65%	Galvanized plain wire, No. 8,	
		per 100 lbs.	\$ 50
		Stove Pipe, per stons.	1 10
RIDGE ROLL		WRINGERS	
Milcor		No. 750, Guarantee	per doz. \$55 00
Galv., Plain Ridge Roll,		No. 770, Bicycle	per doz. 52 50
b'did	75-10-5%	No. 870, Domestic	per doz. 48 50
Galv., Plain Ridge Roll,		No. 110, Brighton	per doz. 48 50
crated	75-10%	No. 750, Guarantee	per doz. 55 50
Globe Finales for Ridge Roll	50%	No. 740, Bicycle	per doz. 52 50
		No. 22, Pioneer	per doz. 29 00
		No. 2, Superb	per doz. 29 00

Say you saw it in AMERICAN ARTISAN—Thank you!

*The Finest Collection of New
and Handsome Designs in*

ART METAL CEILINGS and SIDEWALLS

is at your disposal in selling metal ceilings if you offer the new Friedley-Voshardt complete line. Our new book of 108 pages catalogs in a handy manner these up-to-date patterns and a copy of this book is yours for the asking. We also specialize in made to order designs. Write for a copy of our catalog today.

*Also manufacturers of Architectural Sheet Metal
Ornaments and sheet metal statuary—write for
catalog giving complete details.*

Friedley-Voshardt Co.

Office: 761-771 Mather St.
733-737 S. Halsted St. Factory:
CHICAGO, ILLINOIS

Ball Bearing Punch No. 10



ABOVE machine has a record of 100,000 holes in $\frac{1}{4}$ in. material. Capacity $\frac{3}{8}$ inch hole through $\frac{1}{4}$ inch iron. Weight $8\frac{1}{2}$ pounds. Will rivet as well as punch holes.

Write for Prices

93 Forbes
Street

WHITNEY METAL TOOL CO.
ROCKFORD, ILLINOIS

93 Forbes
Street

This Is the Fire Pot You Need WHY?



B It always burns with a blue flame which produces **THE HEAT**.
E A $2\frac{1}{4}$ pound copper will heat and melt solder in **TWO MINUTES**.
C The pot will generate and operate outdoors in **ANY KIND OF WEATHER**.
A It will heat irons as fast as they are cooled. No time wasted.
U Less than a gallon of gasoline is used in a day.
S It is smokeless and odorless while in operation.
E It can be turned down low when not in use.

Order yours now. Only \$11.00 f. o. b. factory. Two per cent discount when cash accompanies the order.

No. 25 Double Blast
Gasoline Fire Pot

DOUBLE BLAST MFG. CO., Inc.
Commonwealth Ave. North Chicago, Ill.

VESUVIUS BLOW TORCHES



For Gasoline

In pint or quart sizes

With quickly removable soldering iron hooks.

Vesuvius Blow Torches are made of brass or non-corrosive oxydized terne plate. The latter is particularly recommended for hard usage.

Write for prices and illustrated circular today

QUICK MEAL STOVE COMPANY

Div. American Stove Company

825 Chouteau Ave.

St. Louis, Mo.



Torrid

Just as Good as a
"Torrid"

may be used as a reason for not supplying a genuine "Torrid" but it proves genuine "Torrid's" superiority.

GEO. W. DIENER MFG. CO., CHICAGO

Makers of fine Blow Torches and Fire Pots.

Please Mention
**AMERICAN ARTISAN AND
HARDWARE RECORD**
When writing to advertisers

C. G. HUSSEY & CO.

Rolling Mills and Office, PITTSBURGH, PA.

Manufacturers of

SHEET COPPER, BOTTOMS, ROLL COPPER, TINNED and POLISHED COPPER, NAILS, SPIKES, RIVETS, CONDUCTOR PIPE, EAVES TROUGH, ELBOWS, SHOES, MITRES, CORRUGATED COPPER SHEETS, CRIMPED COPPER SHEETS, COPPER WALL TIES, COPPER LATH, ETC.

Branch Warehouses in New York, Philadelphia, Cincinnati & Chicago
Member, Copper & Brass Research Association



"The Power Fan's
AREX—Only Rival."
Original Siphonage Ventilator
200,000 perfect installations!
The Arex-Austor holds all records for efficiency and performance—conceded as the only scientific substitute for fans, blowers and other apparatus.
Engineering Service Free
Prompt Shipment from Stock
Exclusive Ventilator Mfrs.

AREX COMPANY

1881 Conway Bldg., Chicago

ECONOMY VENTILATOR

Designed to meet the demand for a ventilator at lowest possible cost, yet capable of solving any ordinary ventilating problem. **IT PAYS TO STOCK THEM!**
Write for quantity discount.



Inexpensive!

Mention AMERICAN ARTISAN in your reply—Thank you!

BUYERS' DIRECTORY

- Asbestos Paper.**
Sall Mountain Co., Chicago, Ill.
- Asbestos Products.**
Sall Mountain Co., Chicago, Ill.
- Bale Ties.**
American Steel & Wire Co., Chicago, Ill.
- Bolts—Stove.**
Kirk-Latty Mfg. Co., Cleveland, Ohio
- Brakes—Bending.**
Dreis & Krump Mfg. Co., Chicago, Ill.
- Brakes—Carnice.**
Dreis & Krump Mfg. Co., Chicago, Ill.
- Brass and Copper.**
Copper & Brass Research Association, New York
Hussey & Co., C. G., Pittsburgh, Pa.
Merchant & Evans Co., Philadelphia, Pa.
- Cans—Garbage.**
Osborn Co., The J. M. & L. A., Cleveland, Ohio
- Castings—Malleable.**
Fanner Mfg. Co., Cleveland, Ohio
- Ceilings—Metal.**
Friedley-Voshardt Co., Chicago, Ill.
Hopson & Co., W. C., Grand Rapids, Mich.
Milwaukee Corrugating Co., Milwaukee, Wis.
Wheeling Corrugating Co., Wheeling, W. Va.
- Chaplets.**
Fanner Mfg. Co., Cleveland, Ohio
- Chain—Sash.**
Parker-Kalon Corp., New York, N. Y.
- Chimney Tops.**
Standard Ventilator Co., Lewisburg, Pa.
- Cleaners—Furnace.**
Sturtevant, Boston, Mass.
- Chimney Tops.**
Iwan Bros., South Bend, Ind.
- Cleaners—Suction.**
Sturtevant, Boston, Mass.
- Clinker Tongs.**
Federal Mfg. Co., Holland, Mich.
- Copper.**
Copper & Brass Research Association, New York
Hussey & Co., C. G., Pittsburgh, Pa.
- Cornices.**
Friedley-Voshardt Co., Chicago, Ill.
Milwaukee Corrugating Co., Milwaukee, Wis.
- Cut-Off—Rain Water.**
Allred Mfg. Co., Indianapolis, Ind.
Milwaukee Corrugating Co., Milwaukee, Wis.
- Diffuser—Air Duct.**
Aeolus-Dickinson Co., Chicago, Ill.
- Doors—Metal.**
David Lupton's Sons Co., Philadelphia, Pa.
- Eaves Trough.**
Barnes Zinc Products Co., Chicago, Ill.
Berger Bros. Co., Philadelphia, Pa.
Berger Co., L. D., Philadelphia, Pa.
Clark-Smith Hardware Co., Peoria, Ill.
Lupton's Sons Co., David, Philadelphia, Pa.
Milwaukee Corrugating Co., Milwaukee, Wis.
New Jersey Zinc Sales Co., The, New York, N. Y.
Wheeling Corrugating Co., Wheeling, W. Va.
- Elbows and Shoes—Conductor.**
American Rolling Mill Co., Middletown, Ohio
Barnes Zinc Products Co., Chicago, Ill.
- Dieckmann Co., Ferdinand.**
Cincinnati, Ohio
- Double-Duty Elbow Co., Aurora, Ill.**
Lupton's Sons Co., David, Philadelphia, Pa.
Milwaukee Corrugating Co., Milwaukee, Wis.
- Enamel Wire.**
Lalanc & Grosjean Mfg. Co., Chicago, Ill.
- Wood Faces—Cold Air.**
American Wood Register Co., Plymouth, Ind.
Eaglesfield Ventilator Co., Indianapolis, Ind.
Marsh Lumber Co., Dover, Ohio
Milwaukee Corrugating Co., Milwaukee, Wis.
- Fences.**
American Steel & Wire Co., Chicago, Ill.
- Flue Thimbles.**
Milwaukee Corrugating Co., Milwaukee, Wis.
- Furnace Brushes.**
Hardware Specialty Co., Fort Wayne, Ind.
- Furnace Cement—Asbestos.**
Connors Paint Mfg. Co., Wm., Troy, N. Y.
Milwaukee Corrugating Co., Milwaukee, Wis.
Pecora Paint Co., Philadelphia, Pa.
- Furnace Rings.**
Independent Register and Mfg. Co., Cleveland, Ohio
Milwaukee Corrugating Co., Milwaukee, Wis.
Walworth Run Fdy. Co., Cleveland, Ohio
- Furnace Fans.**
Heating Systems & Supply Co., Chicago, Ill.
Warm Air Furnace Fan Co., Cleveland, Ohio
- Furnaces—Warm Air.**
American Furnace Co., St. Louis, Mo.
Brillion Iron Works, Brillion, Wis.
Chicago Furnace Supply Co., Chicago, Ill.
Cleveland Cooperative Stove Co., Cleveland, Ohio
Col-Burn Heater Co., Chicago, Ill.
Cox Stove Co., Abram, Peoria, Ill.
Excelsior Steel Furnace Co., Chicago, Ill.
Floral City Heater Co., Monroe, Mich.
Forest City Fdy. & Mfg. Co., Cleveland, Ohio
Fox Furnace Co., Elyria, Ohio
Gray & Dudley Co., Nashville, Tenn.
Heating Systems & Supply Co., Chicago, Ill.
Henry Furnace & Fdy. Co., Cleveland, Ohio
Hero Furnace Co., Sycamore, Ill.
Hess-Snyder Co., Massillon, Ohio
Homer Furnace Co., Coldwater, Mich.
International Heater Co., Utica, N. Y.
Kruze Co., Indianapolis, Ind.
Lamneck Co., W. E., Columbus, Ohio
Langenberg Mfg. Co., St. Louis, Mo.
Lennox Furnace Co., Marshalltown, Ia.; Syracuse, N. Y.
Liberty Foundry Co., St. Louis, Mo.
Marshalltown Heater Co., Marshalltown, Iowa
May-Fieberger Furnace Co., Newark, Ohio
Meyer Furnace Co., The, Peoria, Ill.
Monitor Furnace Co., Cincinnati, Ohio
Mt. Vernon Furnace & Mfg. Co., Mt. Vernon, Ill.
Mueller Furnace Co., S. J., Milwaukee, Wis.
Oakland Foundry Co., Belleville, Ill.
Peninsular Stove Co., Detroit, Mich.
- Richardson & Beynton Co., New York, N. Y.**
Robinson Furnace Co., Chicago, Ill.
- Rudy Furnace Co., Dowagiac, Mich.**
Rybolt Heater Co., Ashland, Ohio
Schill Bros. Co., Crestline, Ohio
Schwab & Sons Co., R. J., Milwaukee, Wis.
Security Stove & Mfg. Co., Kansas City, Mo.
Standard Foundry & Mfg. Co., DeKalb, Ill.
Standard Furnace & Supply Co., Omaha, Neb.
St. Clair Foundry Corporation, Belleville, Ill.
St. Louis Heating Co., St. Louis, Mo.
Success Heater Mfg. Co., Des Moines, Iowa
Thatcher Co., Chicago, Ill.
Utica Heater Co., Utica, N. Y.
Waterman-Waterbury Co., Minneapolis, Minn.
Western Steel Products Co., Duluth, Minn.
Wise Furnace Co., Akron, Ohio
Williamson Heater Co., Cincinnati, Ohio
- Garages—Metal.**
Milwaukee Corrugating Co., Milwaukee, Wis.
- Glass—Wire.**
David Lupton's Sons Co., Philadelphia, Pa.
Williams Hardware Co., Streator, Ill.
- Grilles.**
Hart & Cooley Co., New Britain, Conn.
Independent Register & Mfg. Co., Cleveland, Ohio
Tuttle & Bailey Mfg. Co., Chicago, Ill.
- Handles—Boiler.**
Berger Bros. Co., Philadelphia, Pa.
- Hangers—Eaves Trough.**
Berger Co., L. D., Philadelphia, Pa.
Hopson & Co., W. C., Grand Rapids, Mich.
Milwaukee Corrugating Co., Milwaukee, Wis.
- Heaters—Cabinet.**
Fox Furnace Co., Elyria, Ohio
Gray & Dudley Co., Nashville, Tenn.
Mueller Furnace Co., L. J., Milwaukee, Wis.
Peninsular Stove Co., Detroit, Mich.
Waterman-Waterbury Co., Minneapolis, Minn.
- Heaters—School Room.**
Floral City Heater Co., Monroe, Mich.
Hero Furnace Co., Sycamore, Ill.
Meyer Furnace Co., The, Peoria, Ill.
Standard Furnace & Supply Co., Omaha, Neb.
Waterman-Waterbury Co., Minneapolis, Minn.
- Hooks—Conductor.**
Berger Co., L. D., Philadelphia, Pa.
- Humidifiers.**
National Air Moistener Co., Minneapolis, Minn.
- Jobbers—Hardware.**
Clark-Smith Hardware Co., Peoria, Ill.
- Kitchen Utensils.**
Lalanc & Grosjean Mfg. Co., Chicago, Ill.
- Lath—Expanded Metal.**
Milwaukee Corrugating Co., Milwaukee, Wis.
- Machines—Crimping.**
Bertsch & Co., Cambridge City, Ind.
- Machinery—Culvert.**
Bertsch & Co., Cambridge City, Ind.
- Machines—Tinsmiths'.**
Bertsch & Co., Cambridge City, Ind.
Chicago Elbow Machine Co., Oak Park, Ill.
- Dreis & Krump Mfg. Co., Chicago, Ill.**
Great Lakes Supply Co., South Chicago, Ill.
Marshalltown Mfg. Co., Marshalltown, Iowa
Osborn Co., The J. M. & L. A., Cleveland, Ohio
Peck, Stow & Wilcox Co., Southington, Conn.
Unishear Co., The, New York, N. Y.
Whitney Mfg. Co., W. A., Rockford, Ill.
Whitney Metal Tool Co., Rockford, Ill.
- Metals—Perforated.**
Harrington & King Perforating Co., Chicago, Ill.
- Miters.**
Friedley-Voshardt Co., Chicago, Ill.
Milwaukee Corrugating Co., Milwaukee, Wis.
- Miters—Eaves Trough.**
Braden Mfg. Co., Terre Haute, Ind.
David Lupton's Sons Co., Philadelphia, Pa.
Milwaukee Corrugating Co., Milwaukee, Wis.
- Nails—Hardened Masonry.**
Parker-Kalon Co., New York, N. Y.
- Nails—Slatting.**
Hussey & Co., C. G., Pittsburgh, Pa.
- Nails—Wire.**
American Steel & Wire Co., Chicago, Ill.
- Oil Burners.**
Security Stove & Mfg. Co., Kansas City, Mo.
- Ornaments—Sheet Metal.**
Friedley-Voshardt Co., Chicago, Ill.
Gerock Bros. Mfg. Co., St. Louis, Mo.
Milwaukee Corrugating Co., Milwaukee, Wis.
- Paint.**
Connors Paint Mfg. Co., Wm., Troy, N. Y.
Pecora Paint Co., Philadelphia, Pa.
- Patterns—Furnace & Stove.**
Cleveland Castings Pattern Co., Cleveland, Ohio
Quincy Pattern Co., Quincy, Ill.
Vadler Pattern Works, Troy, N. Y.
- Pipe and Fittings—Furnace.**
Chicago Furnace Supply Co., Chicago, Ill.
Excelsior Steel Furnace Co., Chicago, Ill.
Henry Furnace & Fdy. Co., Cleveland, Ohio
Lamneck Co., W. E., Columbus, Ohio
Meyer & Bro. Co., F., Peoria, Ill.
Milwaukee Corrugating Co., Milwaukee, Wis.
Mueller Furnace Co., L. J., Milwaukee, Wis.
Osborn Co., The J. M. & L. A., Cleveland, Ohio
Robinson Furnace Co., Chicago, Ill.
Standard Furnace & Supply Co., Omaha, Neb.
- Pipe and Fittings—Stove.**
Allred Mfg. Co., Indianapolis, Ind.
Excelsior Steel Furnace Co., Chicago, Ill.
Meyer & Bro. Co., F., Peoria, Ill.
Milwaukee Corrugating Co., Milwaukee, Wis.
- Pipe—Conductor.**
Barnes Zinc Products Co., Chicago, Ill.
Berger Bros. Co., Philadelphia, Pa.
Burton Co., W. J., Detroit, Mich.
Clark-Smith Hdw. Co., Peoria, Ill.
Dieckmann Co., Ferdinand, Cincinnati, Ohio
Friedley-Voshardt Co., Chicago, Ill.
Hussey & Co., C. G., Pittsburgh, Pa.
Lupton's Sons Co., David, Philadelphia, Pa.
Milwaukee Corrugating Co., Milwaukee, Wis.
New Jersey Zinc Sales Co., The, New York, N. Y.
Wheeling Corrugating Co., Wheeling, W. Va.

When writing mention AMERICAN ARTISAN—Thank you!



Memorial Monuments
Write for Prices and Illustrations
Gerock Bros. Mfg. Co.
Sheet Metal Ornaments and STATUARY
1252 So. Vandeventer Ave.
St. Louis, Mo., U. S. A.

CHICAGO STEEL CORNICE BRAKES
STANDARD OF THE WORLD



THE BEST BRAKE FOR ALL PURPOSES:
Most Durable, Easiest Operated, Low in Price;
Made in All Lengths and to Bend All Gauges of Metal. Over 23,000 in use.

WRITE FOR PARTICULARS
DREIS & KRUMP MFG. CO., 7404 Loomis Street, CHICAGO

Any Hardware Store
can always use new ideas to help increase its sales.

Be sure to read the pages of **AMERICAN ARTISAN AND HARDWARE RECORD** every week—you will secure ideas which you can use to help increase the sales of your hardware store.

"THE STANDARD"
VENTILATOR and CHIMNEY CAP


DOES away with high stacks, swings freely in the slightest breeze and positively cures down-drafts. The strongest and most efficient combination to be had. Has no equal for chimney purposes. All jobbers sell them—write your jobber or us for prices and catalog today.

Manufactured by
STANDARD VENTILATOR CO.
LEWISBURG, PA.



Plecker's Galvanized Eave Trough and Corrugated Expanding Conductors

Made of
Keystone
Copper Bearing
Steel



Costs no more
Lasts longer
Therefore
Cheaper

CLARK-SMITH HARDWARE CO.
PEORIA, ILLINOIS

COES

FOR the customer who wants a Screw Wrench to do all sorts of work—to stand up under all kinds of strains—the Coes Steel Handle is the kind to sell.

An all-steel wrench, properly heat treated, wearing parts hardened. The ideal wrench for "all-round rough use."

How is Your Steel-Handle Stock?

Coes Wrench Co.

ESTABLISHED 1841 IN
Worcester, Mass.

J. C. McCARTY & CO., 29 Murray Street, New York
JOHN H. GRAHAM & CO., 113 Chambers St., New York
FENWICK FRERES, 8 Rue de Recroy, Paris, France



STEEL HANDLE

WIRE

electrical, rope, barbed, plain, nails (bright and coated), tacks, spikes, bale-ties, hoops, springs, netting, wire fences, steel posts, steel gates, trolley wire, rail bonds, flat wire (strip steel), piano wire, round and odd-shaped wire, screw stock, concrete reinforcement. Aerial Tramways.

Illustrated Books describing uses, Free

American Steel & Wire Company

Chicago New York Boston
Denver Birmingham Dallas
U. S. STEEL PRODUCTS CO.:
San Francisco Los Angeles Portland Seattle

BUYERS' DIRECTORY

- Posts—Steel Fence.**
American Steel & Wire Co., Chicago, Ill.
- Fences.**
Bertsch & Co., Cambridge City, Ind.
Parker-Kalon Corp., New York, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Whitney Mfg. Co., W. A., Rockford, Ill.
Whitney Metal Tool Co., Rockford, Ill.
- Fences—Combination Bench and Hand.**
Parker-Kalon Corp., New York, N. Y.
Whitney Metal Tool Co., Rockford, Ill.
Whitney Mfg. Co., W. A., Rockford, Ill.
- Fences—Hand.**
Whitney Metal Tool Co., Rockford, Ill.
Whitney Mfg. Co., W. A., Rockford, Ill.
- Putty—Stove.**
Connors Paint Mfg. Co., Wm. Troy, N. Y.
Pecora Paint Co., Philadelphia, Pa.
- Quadrants—Damper.**
Parker-Kalon Corp., New York, N. Y.
- Radio—Sets and Supplies.**
Williams Hardware Co., Stretator, Ill.
- Ranges—Combination Gas & Coal.**
Cox Stove Co., Abram, Philadelphia-Chicago
Quick Meal Stove Co., St. Louis, Mo.
Thatcher Co., Newark, N. J.
- Ranges—Gas.**
Cox Stove Co., Abram, Philadelphia-Chicago
Quick Meal Stove Co., St. Louis, Mo.
Gray & Dudley Co., Nashville, Tenn.
- Register Shields.**
Hardware Specialty Co., Fort Wayne, Ind.
- Registers—Warm Air.**
American Wood Register Co., Plymouth, Ind.
Chicago Furnace Supply Co., Chicago, Ill.
Eaglesfield Ventilator Co., Indianapolis, Ind.
Excelior Steel Furnace Co., Chicago, Ill.
Hart & Cooley Co., New Britain, Conn.
Henry Furnace & Fdy. Co., Cleveland, Ohio
Independent Register and Mfg. Co., Cleveland, Ohio
Lamneck & Co., W. E., Columbus, Ohio
Meyer & Bro. Co., F., Peoria, Ill.
Milwaukee Corrugating Co., Milwaukee, Wis.
Mueller Furnace Co., S. J., Milwaukee, Wis.
Robinson Furnace Co., Chicago, Ill.
Rock Island Register Co., Rock Island, Ill.
Standard Furnace & Supply Co., Omaha, Neb.
Stearns Register Co., Detroit, Mich.
Tuttle & Bailey Mfg. Co., Chicago, Ill.
Walworth Run Fdy. Co., Cleveland, Ohio
- Registers—Wood.**
American Wood Register Co., Plymouth, Ind.
Chicago Furnace Supply Co., Chicago, Ill.
Eaglesfield Ventilator Co., Indianapolis, Ind.
- Regulators—Damper.**
Parker-Kalon Corp., New York, N. Y.
- Repairs—Stove and Furnace.**
Hessler Co., H. E., Syracuse, N. Y.
Northwestern Stove Repair Co., Chicago, Ill.
- Ridging.**
American Rolling Mill Co., Middletown, Ohio
David Lupton's Sons Co., Philadelphia, Pa.
Milwaukee Corrugating Co., Milwaukee, Wis.
- Rivets—Stove.**
Kirk-Latty Mfg. Co., Cleveland, Ohio
- Roadsters.**
Lalanc & Grosjean Mfg. Co., Chicago, Ill.
- Rods—Stove.**
Kirk-Latty Mfg. Co., Cleveland, Ohio
- Rolls—Forming.**
Bertsch & Co., Cambridge City, Ind.
- Roofing Cement.**
Connors Paint Mfg. Co., Wm. Troy, N. Y.
Pecora Paint Co., Philadelphia, Pa.
- Roof—Flashing.**
Hessler Co., H. E., Syracuse, N. Y.
Milwaukee Corrugating Co., Milwaukee, Wis.
- Roofing—Iron and Steel.**
American Rolling Mill Co., Middletown, Ohio
Cortright Metal Roofing Co., Philadelphia, Pa.
Friedley-Voshardt Co., Chicago, Ill.
Inland Steel Co., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
Milwaukee Corrugating Co., Milwaukee, Wis.
National Enameling and Stamping Co., Granite City Steel Works, Granite City, Ill.
Osborn Co., The J. M. & L. A., Cleveland, Ohio
Wheeling Corrugating Co., Wheeling, W. Va.
- Roofing—Tin.**
Taylor Co., N. & G., Philadelphia, Pa.
- Roofing—Zinc.**
New Jersey Zinc Sales Co., The, New York, N. Y.
- Rubbish Burners.**
Hart & Cooley Co., New Britain, Conn.
- Salt—Ammoniac.**
Specials Chemicals Co., Highland Park, Ill.
- Schools—Sheet Metal Pattern Drafting.**
St. Louis Technical Institute, St. Louis, Mo.
- Schools—Warm Air Heating.**
Northern Institute, Cleveland, Ohio
- Screws—Sheet Metal.**
Parker-Kalon Corp., New York, N. Y.
- Screens—Perforated Metal.**
Harrington & King Perforating Co., Chicago
- Shears—Hand and Power.**
Double-Duty Elbow Co., Aurora, Ill.
Marshalltown Mfg. Co., Marshalltown, Iowa
Peck, Stow & Wilcox Co., Southington, Conn.
Unishear Co., The, New York
Viking Shear Co., Erie, Pa.
- Sheets—Black and Galvanized.**
American Rolling Mill Co., Middletown, Ohio
Davis Co., Inc., C. S., Chicago, Ill.
Inland Steel Co., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
Milwaukee Corrugating Co., Milwaukee, Wis.
National Enameling and Stamping Co., Granite City Steel Works, Granite City, Ill.
Osborn Co., The J. M. & L. A., Cleveland, Ohio
Taylor Co., N. & G., Philadelphia, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.
- Sheets—Iron.**
American Rolling Mill Co., Middletown, Ohio
Merchant & Evans Co., Philadelphia, Pa.
- Sheets—Tin.**
Davis Co., Inc., C. S., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
National Enameling and Stamping Co., Granite City Steel Works, Granite City, Ill.
Taylor Co., N. & G., Philadelphia, Pa.
- Shingles and Tiles—Metal.**
Cortright Metal Roofing Co., Philadelphia, Pa.
Hopson & Co., W. C., Grand Rapids, Mich.
Milwaukee Corrugating Co., Milwaukee, Wis.
Wheeling Corrugating Co., Wheeling, W. Va.
- Shingles—Asphalt.**
Sall Mountain Co., Chicago, Ill.
- Shingles—Zinc.**
Milwaukee Corrugating Co., Milwaukee, Wis.
- Sifters—Ash.**
Diener Mfg. Co., G. W., Chicago, Ill.
- Sky Lights.**
David Lupton's Sons Co., Philadelphia, Pa.
Milwaukee Corrugating Co., Milwaukee, Wis.
- Smoke Pipe—Cast Iron.**
Heating Systems & Supply Co., Chicago, Ill.
- Snaps.**
Peck, Stow & Wilcox Co., Southington, Conn.
- Solder.**
Chicago Solder Co., Chicago, Ill.
Double-Duty Elbow Co., Aurora, Ill.
Milwaukee Corrugating Co., Milwaukee, Wis.
- Soldering Furnaces.**
Berns Co., Otto, Newark, N. J.
Burgess Soldering Furnace Co., Columbus, Ohio
Clayton & Lambert Mfg. Co., Detroit, Mich.
Diener Mfg. Co., G. W., Chicago, Ill.
Double Blast Mfg. Co., North Chicago, Ill.
Quick Meal Stove Co., St. Louis, Mo.
Thermo Gas Furnace Co., Chicago, Ill.
- Soldering Supplies.**
Double-Duty Elbow Co., Aurora, Ill.
Special Chemicals Co., Highland Park, Ill.
- Specialties—Hardware.**
Diener Mfg. Co., G. W., Chicago, Ill.
Hessler Co., H. E., Syracuse, N. Y.
- Stairs—Hard Iron Cleaning.**
Fanner Mfg. Co., Cleveland, Ohio
- Statuary.**
Friedley-Voshardt Co., Chicago, Ill.
Gerock Bros. Mfg. Co., St. Louis, Mo.
- Steel Stampings.**
American Tube & Stamping Co., Bridgeport, Conn.
- Stove Pipe Reducers.**
Allred Mfg. Co., Indianapolis, Ind.
Milwaukee Corrugating Co., Milwaukee, Wis.
- Stoves—Camp.**
Quick Meal Stove Co., St. Louis, Mo.
- Stoves—Gasoline and Oil.**
Quick Meal Stove Co., St. Louis, Mo.
- Stoves and Ranges.**
Cleveland Cooperative Stove Co., Cleveland, Ohio
Cox Stove Co., Abram, Philadelphia, Pa.
Gray & Dudley Co., Nashville, Tenn.
Oakland Foundry Co., Belleville, Ill.
Peninsular Stove Co., Detroit, Mich.
Quick Meal Stove Co., St. Louis, Mo.
Thatcher Co., Newark, N. J.
- Tacks, Staples, Spikes.**
American Steel & Wire Co., Chicago, Ill.
- Tile Cement—Elastic.**
Pecora Paint Co., Philadelphia, Pa.
- Tinplate.**
Davis Co., Inc., C. S., Chicago, Ill.
Milwaukee Corrugating Co., Milwaukee, Wis.
National Enameling and Stamping Co., Granite City Steel Works, Granite City, Ill.
Osborn Co., The J. M. & L. A., Cleveland, Ohio
Taylor Co., N. & G., Philadelphia, Pa.
- Tin—Perforated.**
Harrington & King Perforating Co., Chicago, Ill.
- Tools—Tinsmith's.**
Bertsch & Co., Cambridge City, Ind.
Chicago Elbow Machine Co., Oak Park, Ill.
Dreis & Krump Mfg. Co., Chicago, Ill.
Great Lakes Supply Co., South Chicago, Ill.
Hopson & Co., W. C., Grand Rapids, Mich.
Marshalltown Mfg. Co., Marshalltown, Iowa
Osborn Co., The J. M. & L. A., Cleveland, Ohio
Peck, Stow & Wilcox Co., Southington, Conn.
Unishear Co., The, New York, N. Y.
Viking Shear Co., Erie, Pa.
Whitney Mfg. Co., W. A., Rockford, Ill.
Whitney Metal Tool Co., Rockford, Ill.
- Torches.**
Berns Co., Otto, Newark, N. J.
Burgess Soldering Furnace Co., Columbus, Ohio
Clayton & Lambert Mfg. Co., Detroit, Mich.
Diener Mfg. Co., G. W., Chicago, Ill.
Double Blast Mfg. Co., North Chicago, Ill.
Quick Meal Stove Co., St. Louis, Mo.
- Trade Extension.**
Copper & Brass Research Association, New York, N. Y.
Sheet Steel Trade Extension Committee, Pittsburgh, Pa.
- Trimming—Stove.**
Fanner Mfg. Co., Cleveland, Ohio
- Ventilators.**
Arex Company, Chicago, Ill.
Acolus Dickinson Co., Chicago, Ill.
Berger Bros. Co., Philadelphia, Pa.
Friedley-Voshardt Co., Chicago, Ill.
Hopson & Co., W. C., Grand Rapids, Mich.
David Lupton's Sons Co., Philadelphia, Pa.
Milwaukee Corrugating Co., Milwaukee, Wis.
Royal Ventilator Co., Philadelphia, Pa.
Standard Ventilator Co., Lewisburg, Pa.
Sturtevant Co., Boston, Mass.
- Ventilators—Ceiling.**
Eaglesfield Ventilator Co., Indianapolis, Ind.
Hart & Cooley Co., New Britain, Conn.
Henry Furnace & Fdy. Co., Cleveland, Ohio
Independent Register Co., Cleveland, Ohio
Tuttle & Bailey Mfg. Co., New York
- Wire—Electrical.**
American Steel & Wire Co., Chicago, Ill.
- Wire Hoops.**
American Steel & Wire Co., Chicago, Ill.
- Wire Rope.**
American Steel & Wire Co., Chicago, Ill.
- Wrenches.**
Coos Wrench Co., Worcester, Mass.
Zinc, Peru, Ill.
- Merchant & Evans Co., Philadelphia, Pa.**
New Jersey Zinc Co., The, New York, N. Y.

Mention AMERICAN ARTISAN in your reply—Thank you!

WANTS AND SALES

For paid yearly subscribers, **AMERICAN ARTISAN AND HARDWARE RECORD** will insert under this head advertisements of not more than fifty words **WITHOUT CHARGE**. Employers wishing to secure employees, parties desiring to purchase or sell business, secure partners, or to exchange, etc., will find that these pages offer excellent opportunities to satisfy their wants. Clerks and tinsmiths looking for situations will find it to their advantage to use these columns. Those who respond to these announcements please mention that they "READ THE ADVERTISEMENT IN AMERICAN ARTISAN AND HARDWARE RECORD."

BUSINESS CHANCES

LIGHTNING RODS—Dealers who are selling Lightning Protection will make money by writing us for our latest Factory to Dealer Prices. We employ no salesmen and save you all overhead charges. Our Pure Copper Cable is endorsed by the Mutual Insurance Companies and hundreds of reliable dealers. Write today for samples and prices. **L. K. DIDDLE CO., Marshfield, Wis.**

For Sale—1 Sundstrand adding machine. One year old. \$60.00. 1 medium size safe, fireproof, \$45.00. 1 oak filing cabinet, 4 drawers, only \$35.00. American cash register from 1c to \$99.99, buttons for 9 clerks, for \$190.00. 2 show stands for display purposes only \$15.00 each. 1 Chevrolet truck only 1 year old \$450.00. If interested address A-93, care of **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 8-3t

For Sale—A money maker. A good sheet metal plumbing and radiator shop. Some hardware stock, tinware, etc. All good salable stock. Rent \$25 per month. Leased for five years. The stock and tools will run about \$2,000 or less. Good schools and churches. Population about 3,000. Will trade for another shop; must be in South Dakota. Address A-77, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 6-3t

For Sale—Auto radiator and sheet metal business including machines, tools and stock. Old established in city of 35,000 population. First class location in Wisconsin. The only up-to-date radiator shop in city. Doing from \$500 to \$1,000 per month. Reason for selling on account poor health. Address A-88, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 8-3t

For Sale—Or trade for improved farm in South West Missouri or in Northwest Arkansas. A fully equipped combination sheet metal, plumbing and electrical shop. Established 12 years. Only one in good oil town. Osage County, Oklahoma. 1,500 ft. floor space, good business. 5 room living quarters on rear of lot. Stand inspection. Address F. S. Henderson, Box 276, Avant, Oklahoma. 8-3t

For Sale—Heating, plumbing and sheet metal business in the town of Carson City, Michigan. Stock and tools invoice about \$1,500. Will sell stock at invoice cost; tools at cost less depreciation in use. A good business. Other business the reason for selling. Address A-92, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 8-3t

For Sale—To sheet metal man wanting to step into an established paying shop in a rapidly growing city in Nebraska. With or without building, stock and tools, about \$2,000, no junk, good healthy financial condition. Will stand closest investigation. Address A-82, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 6-3t

For Sale—One 1,000 lbs. capacity Miller hand elevator, good as new. Everything complete was used in a 30 ft. high building. Make us an offer, also 2 Meyers shelf store ladders, 10 ft. high, with self and top rail. 80 of each, at your own price. Write G. T. Mueller and Son, Columbus, Missouri. 8-3t

BUSINESS CHANCES

For Rent—On a monthly rental or commission basis. Convenient storage space for warm air furnace accessory. Office room if desired. On trackage. Trucks to depot provided. Address Keith Furnace Co., Des Moines, Iowa. 8-3t

For Sale—Plumbing, heating and tin shop in south eastern Iowa. Only shop in county seat. Good business. Poor health reason for selling. Address J. W. Minnich, Keosauqua, Iowa. 7-3t

For Sale—Tinsmith shop with two brakes, hand machines and hand tools. Good business section. Reasonable. Address 1950 Gratiot Avenue, Detroit, Michigan. 7-3t

HELP WANTED

Wanted—Sheet metal foreman, experienced in laying out and capable of developing a shop to take care of a growing business. Principal products cornices, ventilators, skylights, marquises, etc. Shipped to all parts of the United States. State nationality, age, married or single, experience, references. Address International Steel and Iron Co., Evansville, Indiana. 8-3t

Wanted—A competent plumber, tinner and furnace man. Must be sober and industrious and capable of taking charge of shop and giving estimates. To such a man we have a very attractive proposition to offer that will be permanent. Located in the best OIL CITY in the TEXAS PANHANDLE. Address Lewis Hardware Company, Panhandle, Texas. 7-3t

Wanted—An experienced gas range man to take charge of production and assembly of gas range department. Must know constructions, and all details of manufacturing. State age, experience, and salary expected. Address A-86, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 7-3t

Wanted—First class tinner, sheet metal worker and furnace man. Must be able to take charge of shop. Inside and outside work. A year around position for right man. In Ohio town of 4,500. State age, wages and references. Address A-89, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 8-3t

Wanted—A first class tinner, plumber and heating man about 30 years of age. Married, one who can talk a low German. Must not use liquor and has a first class record. Steady job. Can go to work at once. Address A-90, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 8-3t

Wanted—At once good all around sheet metal workers. Must be up-to-date. Plenty of work. 8 hours a day. \$1.50 an hour. Don't waste time to write, come at once. Address Pioneer Cornice Works, 150 North West 5th Street, Miami, Florida. 7-3t

Wanted—Good tinner for inside and outside work. One who is able to layout work from blue prints, and erect work. Steady job to right man. Married man preferred. Address J. R. Everroad, Columbus, Indiana. 7-3t

Wanted—Competent sheet metal worker to take charge of sheet metal department in stove factory making complete line of gas and coal stoves. Address A-94, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 8-3t

Wanted—A tinner who is willing to work the year around in a small town. Must be willing to help in other lines in spare time. Address Desmond & Horn, Mukwonago, Wisconsin. 8-3t

Wanted—At once a man who can do some plumbing and general sheet metal work, in a country shop. Wages \$30.00 per week. Address O. L. Doward, Mount Morris, Illinois. 8-3t

SITUATION WANTED

Situation Wanted—A first class furnace stove and heating salesman, wants position as traveling salesman. Would consider salary and bonus or straight commission with advance weekly drawing account. 20 years experience. Address A-87, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 7-3t

SITUATION WANTED

Situation Wanted—Wanted to buy working interest in a combination plumbing and tin shop with some good firm. Am an A-1 plumber, tinner and fitter. Can also do general repairing and furnace work. Please state salary. Address A-91, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 8-3t

Situation Wanted—I would like to hear from some hardware firm that needs the service of a good sheet metal and practical furnace man with years of experience. Good references. Steady position. Might consider installation proposition with a good line of furnaces. Address A-85, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 6-3t

Situation Wanted—By a married man with twenty years' experience in heating, plumbing, sheet metal, pump and windmill work. Do not use tobacco or liquor in any form. Can furnish the best of references. Can start work at any time. State wages in first letter. Address A-75, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 5-3t

Situation Wanted—By sheet metal worker and furnace man. Am a married man, 26 years of age, with six years of practical experience. Am honest and energetic. Have a desire to learn. Address A-81, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 6-3t

Situation Wanted—An all around plumber, tinner and furnace man who understands steam and hot water heating and all around repairing. Will go anywhere. Address A-83, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 6-3t

Situation Wanted—By a furnace installer on new and old houses. Understand the furnace business. Want position with some reliable firm. Address A-79, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 6-3t

Situation Wanted—By experienced hardware clerk, tinner and furnace man. Best of references. Can come after March 1st. Address A-95, care of **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 5-3t

Situation Wanted—Tinner and warm air furnace installer wants position with hardware firm. Small town west of Mississippi river. Address A-78, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 6-3t

Situation Wanted—By experienced sheet metal and furnace man. Nothing but steady job. State wages. Married. Steady worker. Address 1114 11th Street, Sioux City, Iowa. 6-3t

Situation Wanted—First-class furnace and sheet metal man wants position with good firm, in central states preferred. Missouri, Iowa, Wisconsin or Illinois. State wages, etc. Address Edward Thiel, Springfield, Missouri. 6-3t

Situation Wanted—By first-class tinner who also does plumbing. Married and reliable. Capable of estimating and laying out work. Address A-84, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 6-3t

TINNERS' TOOLS

For Sale—One Chicago Steel Brake No. 4, 18 gauge and lighter. This is a new brake and has never been used. Priced \$150.00. Also Queen City Square Shear 30", 18 gauge and lighter, \$75.00. Address Van Tassel Sheet Metal Works, 620 Eagle Street, Niles, Michigan. 8-3t

Wanted—Set of used tinner's tools and machines including 8 ft. steel brake. List all tools with what make, stating lowest cash price and what condition tools are in. Address N. W. Christians, 2606 Virginia Street, Sioux City, Iowa. 8-3t

For Sale—2 1C60 American water boilers, rated at 1,750 feet. \$50.00 each takes them. Also 1 double seamer, new, P. S. & W. No. 644. \$50.00. Address Howard Heating and Plumbing Company, Howard, South Dakota. 8-3t

For Sale—1 Pexto 30 inch Bar Folder. 1 Pexto 30 inch forming roll. 14 ft. double truss forming brake. Address Huron Furnace Co., Huron, South Dakota. 7-3t

TINNERS' TOOLS

For Sale or Trade—One 18-inch hand crimping and corrugating machine, 4-inch rolls. Machine is good as new. Weight about 200 pounds. Will sell for \$15.00 or trade for elbow machine that can be used in common machine standards. Address Acme Sheet Metal and Radiator Works, Parkston, South Dakota. 6-3t

Wanted—Double seamer to make wash boilers 14½ in. bottom, 19½ in. diameter. Top, 20 ins. high flaring disc, 26 gauge material. Also throatless shear. State make, condition and lowest cash price. Address P. O. Box 147, Comfort, Texas. 5-3t.

Wanted—Set of used tinner's tools and machines including an eight foot brake. State condition and price. Address E. W. Hiatt, Sarasota, Florida. 4-3t

BOOKS

Order your books now with your renewal to AMERICAN ARTISAN. You can save 10 per cent on your total purchase. Subscription to AMERICAN ARTISAN is \$3.00 for 2 years. Take advantage of this saving also.

The book, "Home Instruction for Sheet Metal Workers," by William Neubecker, and edited by Frank X. Morio, contains facts that you want to know and know how to use. A practical instruction manual for the apprentice, mechanic and master sheet metal worker, covering the course of instruction given students in the sheet metal department at the New York Trade School. Cutting, forming, preparing full-size details from architect's blueprints, developing patterns and bending on the brake and setting the work together. Chapters on skylight and pitched skylights, stationary and movable louvers, turret sash, gearing, etc. 400 pages, 684 illustrations, bound in cloth, with 15 folding plates bound separately. Price \$5.00. Order from the Book Department, AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.

SPECIAL NOTICES

Special Notices — displayed want ads—are charged at the rate of \$3.00 per inch per insertion.

PATENTS

HUBERT E. PECK
Patent Attorney
Barrister Bldg., WASHINGTON, D. C.

**FURNACE SALESMAN
WANTED**

Wanted in Denver, Colorado, a furnace salesman selling direct to the consumer. Wonderful opportunity and steady position to the right party. Give references and previous experience. Address L-49, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 7-1t

SALESMEN

calling upon hardware stores, furnace and electrical manufacturers, to sell INSALUTE. The material which is used all over the world, when glues, pastes and cements have failed. Warm air furnace manufacturers are using it for DOUBLE-SEALING in connection with the asbestos cement to prevent dirt, smoke, etc., from getting into the living rooms. We also manufacture SOLID PORCELAIN STOVE LEG RESTS. Address Technical Products Co., Sheridan Square, Pittsburgh, Pa. 8-1t

SPECIAL NOTICES**SITUATION WANTED**

Young man, 30 years of age, married, desires sales connection with manufacturer of furnaces or sheet metal goods. 12 years experience in the retail selling and installing of warm air systems and sheet metal work. Located at present in large central Illinois city, well acquainted with the trade and have character and initiative to secure business for manufacturer wishing representation in this vicinity. Address L-51, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 8-1t.

**EXPERIENCED FURNACE
AND STOVE SALESMAN
DESIRES CONNECTION**

Many years experience. Can furnish best of references. Address M. C. Hathaway, 1703½ Lincolnway, LaPorte, Indiana. 8-3t.

WANTED

Manufacturer's representative opening display and sales room in one of the principal streets of Detroit, Michigan, wishes an additional line. Only high grade line considered. Address L-52, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Ill. 8-3t

WANTED

A first class hustling city furnace salesman, one familiar with house to house canvassing preferred. Commission. Address L-46, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 5-3t.

WANTED

Traveling men who have had experience in selling stoves and warm air furnaces in Indiana, eastern parts of New York, Connecticut, Massachusetts, and Vermont, and the eastern parts of Pennsylvania and New Jersey, address L-48, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 6-tf

Established 1876

**The
"CENTENNIAL"
Rain-Water Cut-Off**

The strongest, most durable and Cheapest Cut - Off on the market, make of galv. iron or copper to fit corrugated and plain pipe and which can be used without extra pipe or elbows.

For Sale By All
Leading Jobbers
Manufactured only by
ALLRED MFG. CO.

Successor to
SULLIVAN-GEIGER CO.
1118-20 South Harding Street, INDIANAPOLIS, IND.

**SPECIAL NOTICES****SALESMAN WANTED**

Experienced and successful stove and range salesman. Good proposition for a good man. Address Gray & Dudley Company, Manufacturers of Washington Stoves and Ranges, Nashville, Tennessee. 7-3t

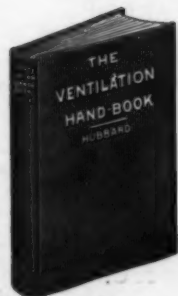
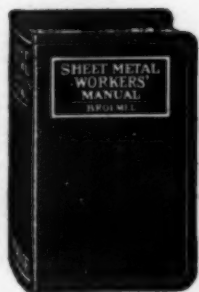
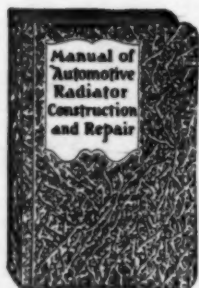
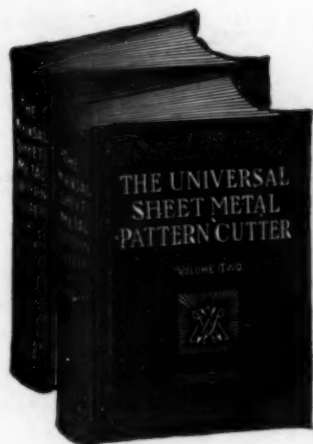
SALESMEN

To represent on a drawing account and commission basis one of the largest heating plant manufacturers in the country. Successful applicants will go on actual installations for a while at a salary, then sent to a factory training school, at no expense to applicant. Address your letter of application to address given below, and give complete details. All information will be treated in strict confidence and no check of references will be made until after personal interview. Write fully as it is our only method of judging you. Branch Manager's position guaranteed to those who qualify. Address L-50, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 7-1t

FOR SALE**Plumbing, Heating, Sheet
Metal Shop and Hardware**

City of 1,000 with two refineries, oil industry and ranch community. Only shop in city. Plenty of work. Will sell with or without building. Good location. Stock and equipment seven thousand dollars. With building fourteen thousand. Actual cost of building and lot, stock and equipment, twenty-three thousand. Will sacrifice on account of going back to ranch. About four thousand cash, balance on easy terms. Address W. R. Cronk, Box 474, Glenrock, Wyoming. 25-3t

Winter Nights Are Reading Nights---Read These Books



The Universal Sheet Metal Pattern Cutter Vols. 1 and 2

By Neubecker

HERE are two books that can't be beat. They are the most practical and useful treatises on the subject.

Work of all the branches of the trade and the broadest scope of details are found—inside and outside work—small jobs and the most complicated are shown, explained and profusely illustrated.

The first volume deals with all types and kinds of inside small and large sheet metal work.

The second volume of this practical work deals with the more advanced branches of sheet metal work, in fact is largely devoted to the architectural end of the business. It consists of 400 double column pages and is illustrated with 711 engravings showing all methods under treatment, as well as perspective views of the subjects of the patterns, and other demonstrations in their finished state. It includes drawing, full sized detailing and lettering, development and construction of sheet metal cornices and skylights, leaders, copings, pediments, circular work, dormer and bay windows, sheet metal ornamentations, electrically illuminated signs, hollow metal windows, frames and fire doors, metal roofing, etc.

The volumes are bound in heavy cloth and each measures 9 x 12 in. Each contains over 380 pages and 680 original drawings. Price \$7.50 each.

Exhaust and Blow Piping

By Hayes

EXHAUST and Blow Piping has had an unusually big demand. A fresh supply is now off the press and is in our hands for immediate delivery. It has an invaluable treatise on the planning, cost, estimation and installation of fan piping in all its branches giving all necessary guidance in fan work blower and separator construction. 159 pages, 5 x 8, 51 figures. Cloth, \$2.00.

Manual of Automotive Radiator Construction and Repair

By F. L. Curfman and T. H. Leat

ANYONE interested in Radiator Repairing will find the 185 pages of practical instructions and the 120 illustrations showing actual construction and repairing a big help. In a condensed manner some four to five thousand answers to questions are given. It is thoroughly practical as both authors are men of wide experience in this work. Printed in large, easy to read type. Measures 5 1/4 x 9 inches. Price \$2.50.

Sheet Metal Duct Construction

By Neubecker

A TREATISE on the construction and erection of heating and ventilating ducts, including the cutting and forming of the metal, the laying out of the elbows etc. A practical expert wrote this book and you'll find that it covers the subject thoroughly. By William Neubecker. Bound in cloth, 194 pages, 217 illustrations. Size 5 1/4 x 8 1/4 in. Price \$2.00.

Sheet Metal Workers' Manual

A NEW book produced by the combined efforts of L. Broemel, a practical man, and the late Professor J. S. Daugherty, instructor in Sheet Metal Work at the Carnegie Institute of Technology, Pittsburgh. Pattern drafting is its biggest feature; not only tells how to make the pattern, but how to develop it with modern machines and tools; gives valuable assistance on soldering, brazing, welding, crimping, beading, straight, circular and irregular cutting, in fact covers every angle of the trade. Bound in leatherette; 500 pages; more than 400 pen drawings and illustrations. Price \$2.00.

Essentials of Sheet Metal Work and Pattern Drafting

By Professor J. S. Daugherty

INVALUABLE to the sheet metal worker, contractors and instructor, as well as an elementary and advance course for vocational and trade school students and apprentices. Some of the subjects covered are pattern cutting, soldering, edging, wiring, radial line development, pipes, elbows, miters, pitched covers and flaring articles, pipe intersections and tee joints. 181 pages, substantially bound in blue cloth; profuseful illustrated. Price \$1.50.

The Ventilation Handbook

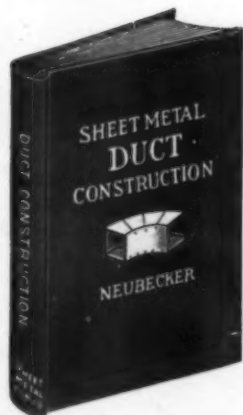
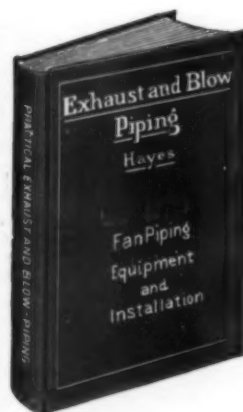
By Charles L. Hubbard

A PRACTICAL book designed to cover the principles and practice of ventilation as applied to furnace heating; ducts, flues and dampers for gravity heating; fans and fan work for ventilation and hot blast heating by means of a comprehensive series of questions, answers and very plain descriptions easy to understand. Price \$2.00.

Kinks and Labor Savings Methods for Sheet Metal Workers Vols. 1 and 2

VOLUME I. There are hundreds of ideas and expedients, all contributed by sheet metal workers throughout the country, illustrated by cuts and original drawings. Cloth bound. Size 4 1/4 x 7 in. Price \$1.00.

Volume II written in same popular style as Volume I. Places at your disposal a comprehensive collection of ingenious ways of executing many practical tasks in much more simple way than if done in the regulation manner. Also contains special articles on Automobile Repairing; gives a very practical series of illustrated directions on erecting metal ceilings with ten guide rules which will save time, trouble and expensive mistakes. Price \$1.00.



USE THIS HANDY ORDER BLANK

AMERICAN ARTISAN, 620 S. Michigan Ave., Chicago, Ill.

FOR the enclosed \$_____ send the books ordered and enter following subscription (or renewal).

Name_____

Address_____

NOTE — Deduct 10% from TOTAL amount of order when subscription is included with order for books — write your name and address on margin of this advertisement.

BOOKS WANTED

[] Send me complete book catalog.



The New Milcor 3-car Multiple Unit Garage with Weatherboard Siding

Another Big Opportunity for Progressive Sheet Metal Men

NOW that Milcor has perfected its "multiple unit" idea in PORTO Metal Buildings, opportunities which never before existed are now within reach of sheet metal men in every community.

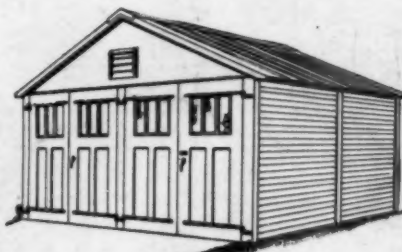
Investigate the new Milcor Garage Plan. Remarkable success has been attained in some localities by sheet metal men who have specialized in metal buildings. This new Milcor design now makes it simple for *you* to get into this profitable business, because you can carry the interchangeable Milcor units in stock and assemble any size garage desired—2-car, 3-car, 4-car, or larger.

Architecturally Beautiful



The Milcor 1-car Garage

With their good-looking "weatherboard" metal siding, these Milcor buildings appeal to everyone because they are really beautiful from an architectural standpoint. And they are firesafe, lightning proof, storm tight, strong and economical!



The Milcor 2-car Garage

You can get big money selling these superior buildings. **Why don't you!** Territories will be restricted. Write at once if you are interested.

Milcor Garages are made in Galv. Steel, Galv. "Coppered Metal" or Galv. ARMCO Rust-Resisting Ingot Iron.

MILWAUKEE CORRUGATING COMPANY, MILWAUKEE, WISC.
CHICAGO, ILL. KANSAS CITY, MO. LA CROSSE, WISC.

MILCOR

PORTO

METAL GARAGES *and* BUILDINGS